DOMINION OF CANADA

DOMINION BUREAU OF STATISTICS

• • •

REPRINTED FROM VOLUME XII, SEVENTH CENSUS OF CANADA, 1931

Census Monograph No. 3

Fertility of the Population of Canada

(A study based on the Census of 1931 and supplementary data.)

Published by the Authority of

THE HON. JAMES A. MACKINNON, M.P., Minister of Trade and Commerce

Price, 35 cents

REPRINTED FROM VOLUME II, SEVENTH CENSUS OF CANADA, 1931

Census Monograph No. 3

Fertility of the Population of Canada

of Canada

(A study based on the Census of 1931 and supplementary data)

❦

by

W. R. TRACEY

Published by the authority of

THE HON. JAMES A. MacKINNON, M.P., Minister of Trade and Commerce

PREFACE

Owing to the short period of observation covered by the data on Vital Statistics for Canada as a whole, this study is intended to be fundamental to future studies rather than a means of arriving at conclusions about the trend and incidences of fertility. Consequently, the great part of it is a collection, arrangement and summary of facts covering this period that have not yet appeared in print. It was found necessary to draw some conclusions tentatively at least. These will be found in the Summary, page 15.

The monograph is divided into two parts, Part I dealing with the general trend of fertility and Part II with differential fertility as incidental to racial, birthplace and regional distributions.

Owing to the death of Mr. W. R. Tracey, Chapter VII and parts of the other chapters were written by M. C. MacLean, M.A., the general director of these monographs and by Miss M. E. Fleming, B.A., and Miss M. MacGillivray who also assisted Mr. Tracey throughout. Chapter I on completeness of birth registrations was written by Mr. N. Keyfitz. The material was prepared for press by Miss B. Stewart, B.A., and the charts were drawn by Mr. J. W. Delisle.

R. H. COATS,

Dominion Statistician.

APRIL 26, 1939.

TABLE OF CONTENTS

TABLE OF CONTENTS—Con.

PART III—Con.

APPENDICES

SYNOPSIS

Summary

PART I

General Statement of Rates and Trend in Fertility

Chapter I—Completeness of Birth Registration

SYNOPSIS—Con.

SYNOPSIS—Con.

Chapter III—Order of Birth—Con.

SYNOPSIS—Con.

Chapter IV—Gross and Net Reproduction Rates

PART II

Differential Fertility

Introduction

Chapter V—Racial Differences in Fertility

SYNOPSIS—Con.

Chapter VII—Regional Differences in Fertility

KEY TO INDEX MAP

Province	County	Number on map	Province	County	Number on map	Province	County	Number on map
Prince Edward Island........	Kings..........	1	Quebec–Con.	Chateauguay.....	14	Ontario....	Addington........	1
	Prince.........	2		Chicoutimi......	15		Algoma..........	2
	Queens........	3		Compton........	16		Brant...........	3
				Deux-Montagnes	17		Bruce...........	4
Nova Scotia...	Annapolis......	1		Dorchester.....	18		Carleton........	5
	Antigonish.....	2		Drummond......	19		Cochrane........	6
	Cape Breton....	3		Frontenac.......	20		Dufferin........	7
	Colchester.....	4		Gaspé..........	21		Dundas..........	8
	Cumberland....	5		Hochelaga......	22		Durham.........	9
	Digby.........	6		Hull...........	23		Elgin...........	10
	Guysborough...	7		Huntingdon.....	24		Essex...........	11
	Halifax........	8		Iberville.......	25		Frontenac.......	12
	Hants.........	9		Joliette........	26		Glengarry.......	13
	Inverness......	10		Kamouraska....	27		Grenville.......	14
	Kings.........	11		Labelle.........	28		Grey...........	15
	Lunenburg.....	12		Lac-St-Jean....	29		Haldimand......	16
	Pictou........	13		Laprairie......	30		Haliburton......	17
	Queens........	14		L'Assomption...	31		Halton..........	18
	Richmond......	15		Laval..........	32		Hastings........	19
	Shelburne.....	16		Lévis..........	33		Huron..........	20
	Victoria.......	17		L'Islet........	34		Kenora.........	21
	Yarmouth.....	18		Lotbinière......	35		Kent...........	22
				Maskinongé.....	36		Lambton........	23
New Brunswick	Albert.........	1		Matane........	37		Lanark.........	24
	Carleton.......	2		Mégantic.......	38		Leeds..........	25
	Charlotte......	3		Missisquoi.....	39		Lennox.........	26
	Gloucester.....	4		Montcalm......	40		Lincoln.........	27
	Kent..........	5		Montmagny.....	41		Manitoulin......	28
	Kings.........	6		Montmorency...	42		Middlesex.......	29
	Madawaska....	7		Montreal Island..	43		Muskoka........	30
	Northumberland....	8		Jesus Island.....	44		Nipissing.......	31
	Queens........	9		Napierville.....	45		Norfolk.........	32
	Restigouche....	10		Nicolet........	46		Northumberland....	33
	St. John.......	11		Papineau......	47		Ontario.........	34
	Sunbury.......	12		Pontiac........	48		Oxford.........	35
	Victoria.......	13		Portneuf.......	49		Parry Sound....	36
	Westmorland...	14		Quebec........	50		Peel...........	37
	York..........	15		Richelieu......	51		Perth..........	38
				Richmond......	52		Peterborough...	39
Quebec........	Abitibi........	1		Rimouski......	53		Prescott........	40
	Argenteuil.....	2		Rouville.......	54		Prince Edward...	41
	Arthabaska....	3		Saguenay......	55		Rainy River....	42
	Bagot.........	4		Shefford.......	55		Renfrew........	43
	Beauce........	5		Sherbrooke.....	56		Russell.........	44
	Beauharnois...	6		Soulanges......	57		Simcoe.........	45
	Bellechasse....	7		Stanstead......	58		Stormont.......	46
	Berthier......	8		St-Hyacinthe...	59		Sudbury........	47
	Bonaventure...	9		St-Jean........	60		Thunder Bay...	48
	Brome........	10		Ste-Marie......	61		Timiskaming...	49
	Chambly......	11		Ste-Maurice...	62		Victoria........	50
	Champlain....	12		Témiscouata...	63		Waterloo.......	51
	Charlevoix....	13		Témiskaming...	64		Welland........	52
				Terrebonne.....	65		Wellington......	53
				Vaudreuil......	66		Wentworth.....	54
				Verchères......	67		York...........	55
				Wolfe..........	68		District of Patricia.......	56
				Yamaska.......	69			

NOTE.—The census division numbers of the Prairie Provinces and British Columbia are given on the map.

INDEX MAP

SHOWING

THE COUNTIES AND CENSUS DIVISIONS

as organized at the census of 1931
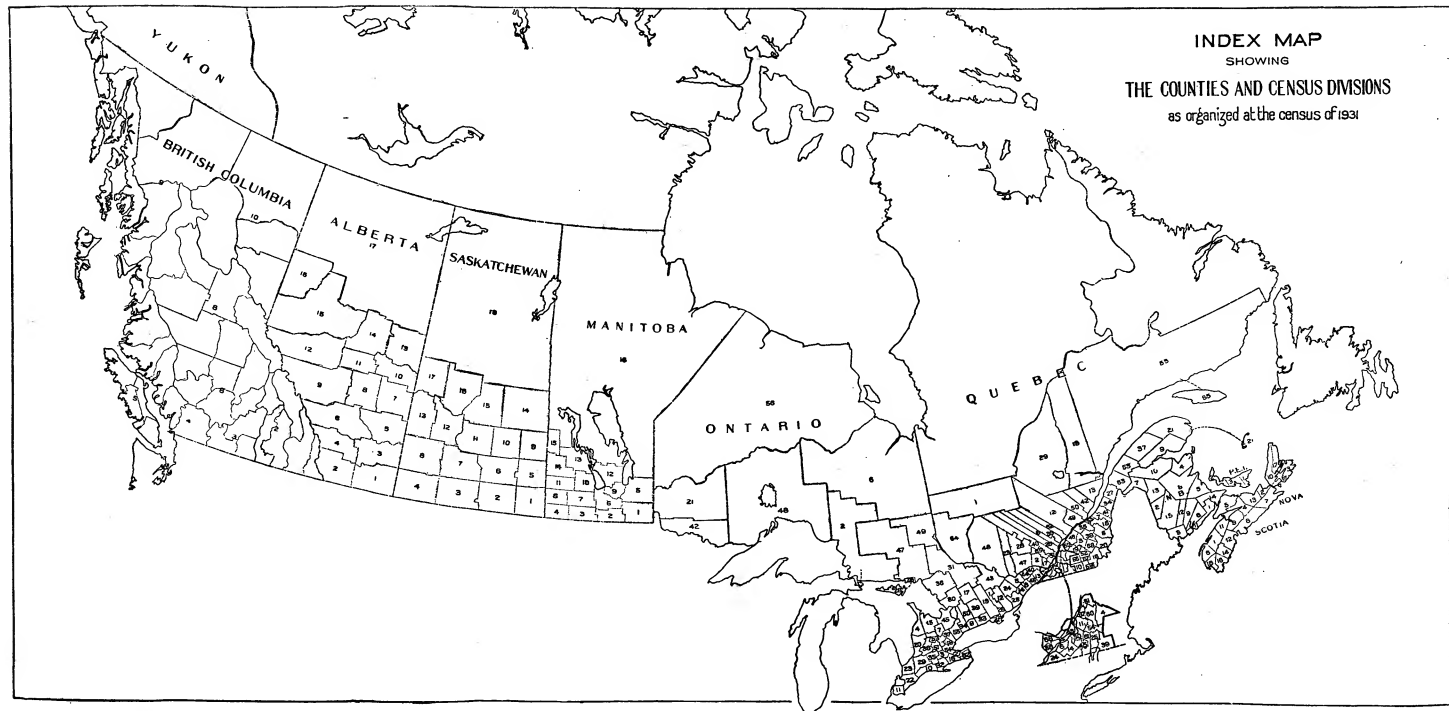
SUMMARY

COMPLETENESS OF BIRTH REGISTRATION

Chapter I, which investigates the completeness of the registration of births, establishes a conviction that the registration of births is satisfactorily complete. By "satisfactorily" is meant that such incompleteness as exists is not sufficient to cause any serious misinterpretation of the data. This is illustrated in Statement VIII which shows the consequences of certain (assumed) degrees of incompleteness. The evidence collected elsewhere in the chapter, while not exactly measuring the degree of completeness, points strongly to the conclusion that it is within the limits of serious consequences. Two criteria were used in the investigation: (1) a sample of children appearing in the census at ages suitable for comparison with Vital Statistics records was traced through these records; (2) the total number alive at the census was compared with the number expected for the record period. It is obvious that the case of any child shown in the census as being born in the province while in reality he was born in a hospital in another province and recorded as born in that province would not be found in the Vital Statistics records; moreover, misstatement of age at the census would prevent his appearance in the records where he was expected to appear. Furthermore, any change in the name or habitat of the parent or child might make it impossible to trace back from the census to the registration records. Furthermore, it is impossible to make the search through the records exhaustive. It follows that the degree of completeness ascertained by this method is well below the degree actually achieved. This becomes more apparent when it is actually found that the more exhaustive the search the greater the degree of completeness ascertained.

THE TREND OF THE CANADIAN BIRTH RATE IN THE POST-WAR PERIOD

Chapter II shows that in Canada as a whole and in each of the nine provinces there has been a marked decline in the number of births over the last ten years. The decline persists after allowances are made by means of recognized methods of standardization for age of mother and the conjugal condition of the population. However, any conclusions as to future trends should be expressed with reservations. The necessity for such reservations is implicit in the complexities revealed in the next chapter in the data on order of birth. Some important conclusions, however, are arrived at in Chapter II. A period of definite decline, viz., from 1921 to 1936, was established. Although this cannot be regarded as a prognostication of the future, it is a point in history, and the history also is one of depression. It is impossible to establish the effect of this depression fully but its direct influence is clearly seen. A calculation of the effect of different factors upon the crude birth rates during this period shows that the age distribution of married mothers within the child-bearing age range becomes more and more unfavourable; also, the proportion illegitimate of the total births increased (this may be an outcome of the depression). However, a favourable factor emerged, viz., the proportion of females of child-bearing age increased. The specific birth rate of married women declined 15 p.c. in the decade.

ORDER OF BIRTH

Chapter III on order of birth is highly illuminating, as containing data which deal with the past records of the mothers appearing in the birth statistics of each year. There are many trends appearing in these data, some of which are complicated too much by unavailable factors to measure. However, some points stand out quite clearly. The increases and decreases in the number of births occurring each year are closely associated with types of mother. In the decade for which orders of births are tabulated (1927–1936), the first and second births have, on the whole, shown increases, and yearly increases and decreases have been closely associated with the trend of marriages. Beginning with the third there has been a progressive decline in the import-ance of each order, the greatest decline is reached in the fifth order after which there is a progressive lessening of the decline until after the tenth order when a stationary condition is reached. This is illustrated in Chart 12, page 80. The trend of decline, then, affects chiefly mothers with

15

moderately large families, the extremely large and extremely small showing increases. This trend is present in more or less modified form in the different age groups of mother. What seems to be a very important feature in the decline is the disappearance of the unusual type of mother. Thus the modal ages in 1927 for the first and second orders are 20-24, for the third, fourth and fifth 25-29, for the sixth, seventh and eighth 30-34, for the ninth to the thirteenth are 35-39, for the fourteenth and over 40-44. It is remarkable that on the whole (except slightly in the case of first births or orders higher than fourteenth) the modes remained rather steadier than the remainder, but showed a trend of increasing importance relative to the whole as time went on. This is shown in the statement below. It would seem to indicate that for the third to the thirteenth orders of birth, the changes that are taking place are in the unusual elements, i.e., where a high or a low order of birth occurs at an unusual age, e.g., it is very uncommon for a mother 20-24 years of age to show an order of birth higher than the sixth. In 1927, mothers in this group showed 248 births higher than the sixth order, in 1936 they showed only 173, a decrease of more than 30 p.c. If it is true that the disappearance of unusual types of mothers is an important element in the decline in births, this may have an important bearing on stabilizing future birth rates. Once the unusual is eliminated, the usual may not only show a steady birth rate but even a possible increase.

| Order of Birth | Average Age of Mother | Number | | Numerical Increase, 1927-36, in | | Percentage Increase, 1927-36, in | |
		1927	1936	Modal Births	Total Births of Order	Modal Births	Total Births of Order
All orders		94,474	88,424	−6,050	−16,669	− 6·4	− 7·1
1st- 2nd	20-24	38,794	40,760	1,966	6,212	5·1	6·9
3rd- 5th	25-29	29,498	25,679	−3,817	−11,702	−12·9	−14·7
6th- 8th	30-34	14,242	11,741	−2,501	− 7,304	−17·6	−19·2
9th-13th	35-39	10,090	8,681	−1,409	− 3,408	−14·0	−15·2
14th and over	40-44	1,852	1,563	− 289	− 467	−15·6	−13·4

GROSS AND NET REPRODUCTION RATES

Chapter IV shows gross and net reproduction rates, i.e., the number of female children expected from the individual female in the population on the basis of current birth rates. Except in one province, British Columbia, the reproduction rates are sufficiently high to maintain a steady increase in population, while the province of New Brunswick shows a very high rate, indeed sufficiently high to give a population which would be large even in the whole of Canada in ten generations—if, of course, this reproduction rate is maintained. Even for the other provinces, unless the birth rate continues to decline, there is very little danger of shortage. Ontario, the lowest except British Columbia, shows a net reproduction rate of 1·13 in a generation. In ten generations (about 240 years) this would mean more than trebling the present population.

RACIAL DIFFERENCES IN FERTILITY

Chapter V studies differential fertility from the standpoint of racial origin. Three conclusions on the basis of this study would seem to be outstanding: (1) that declines are characteristic of all races; (2) that the race differential is not very large, and (3) this differential is not particularly due to the same races occupying the same position in the scale of decline. This last is seen particularly in studying the orders of birth by race. The British, although showing low rates and steady declines are exchanging places with certain other races in the scale of low rates.

One particularly interesting feature is disclosed by a study of race fertility. Although up to the present the different races have not intermingled to a great extent, yet when the process is studied over the 16 years from 1921 to 1936, it is seen that the rate of intermingling has been becoming increasingly rapid, the percentage of total births having the mother of one origin and the father of another nearly doubling in the period. Of course, it is easy to understand this, since the period 1921-36 was as long as from 1906 to 1921 and during the earlier period these races were coming in. Such of them as were married before they came would naturally be of the

same origin, man and wife, while the earlier marriages in Canada when their races were stronger would naturally be among themselves. The intermingling of French and other races does not seem to be nearly as rapid but this is also easily understood. It is not necessarily a question of propensity at all but a question of propinquity. The French are largely in Quebec and a Frenchman would have to go out of his way to find a wife of a racial origin other than French. This is probably due to the growth of cities with the consequent conjugation of different races as well as to immigration to the newer towns of Quebec. There has been an actual increase in the last ten years in the proportion of French mothers with fathers of a different race.

DIFFERENCES IN FERTILITY ACCORDING TO BIRTHPLACE OF PARENTS

From the differential fertility by birthplace we have revealed a feature not shown in race fertility; at least, not directly, i.e., the effects of immigration. Chapter VI shows the proportion of births due to immigration is becoming rapidly smaller. It is amazing how rapidly the process of becoming indigenous proceeds. The Prairie Provinces are an outstanding example. In the case of Canada as a whole, the proportion with father and mother from the same province is increasing rapidly. The number of cases where the father is born in one province of Canada and the mother in another has also increased rapidly, e.g., we have the case of 1,749 births to Alberta-born mothers in 1936 as compared with 543 in 1926. The number of births to immigrant parents decreased from 70,573 (in the Registration Area) in 1921, to 35,999 in 1936; while the births to Canadian-born parents increased from 95,549 to 108,885 in the same period. The increase in proportion of births where both parents are born in the province indicates a static condition of the population. We do not know whether or not this is a temporary phase arising from the depression; and we can only surmise its bearing upon the recent decline in total births.

REGIONAL DIFFERENCES IN FERTILITY

Chapter VII shows from four points of view the birth rates of the different regions of Canada: (1) as between different sized cities and rural or small city parts; (2) as between 227 divisions of Canada when all urban centres are included; (3) as between the same divisions when cities and towns of 5,000 and over are excluded; (4) as between the divisions of (3) corrected for the influence of race and religion. Three maps illustrate or locate the regional differences shown in 2, 3 and 4. This regional study seems to point to definite conclusions. The influences of race (French) and religion (Roman Catholic) are strong but not nearly as strong as might be expected. The major influence would seem to be age of settlement and density of population, the older and denser settlements showing the low, and the new and sparsely settled the high birth rates. Dividing the birth rates into seven classes in descending order, as shown on the maps there is a marked continuity to each class from the standpoint of latitude. There seems to be a graduation from the higher classes in the higher to the low in the lower latitudes. Special cases appearing as exceptions are usually, if high, associated with sparsity of settlement and if low, with age of settlement or emigration. Thus an almost continuous block of counties (exclusive of cities and towns of 5,000 and over)—Kings, P.E.I., Inverness, Victoria, Richmond, Antigonish and Pictou, N.S.—when corrected for race and religion, are in the lowest class. Emigration and especially recent emigration from these places has been exceptionally heavy. Emigration takes place at the most marriageable ages, especially for females, and female emigration from these places has been very heavy. Indeed, in other exceptionally low places such as Divisions Nos. 9 and 10, B.C., another phase of the same thing is seen. There the masculinity of the population is particularly great and there is throughout the divisions a correlation between high masculinity and low birth rates. Now that emigration is no longer heavy it will be interesting to watch the birth rates in these regions of exceptionally low rates.

Taking rural and urban centres, it is noticeable that there is a graduation of birth rates from 24·1 in rural parts and urban centres under 5,000, 24·7 in cities and towns 5,000–10,000 and 23·3 for cities and towns 10,000–40,000, to 20·8 in the cities of 40,000 and over. In spite of this graduation, it is noticeable (see Maps 3 and 4) that the exclusion of cities over 5,000 does not usually cause a raising of the birth rates in the counties where they are excluded. Wentworth county exclusive of cities over 5,000 shows a lower birth rate than when these cities

are. ncluded. It should be mentioned that the suburban parts of cities are tabulated as "rural" and if the suburbs happened to be more sterile than the main city, the results shown in Maps 3 and 4 in this respect would be at least partly explained. The crude birth rates to which reference is made almost exclusively in this chapter are calculated on the basis of the total population. Consequently, if it happened that older and retired persons tend to go to the suburbs and the small towns and villages, the birth rate would be lowered thereby. There is little doubt that in many of the smaller cities, towns and villages we have the situation that has just been described in connection with the counties of the Maritimes, *viz.*, heavy emigration to the large cities and elsewhere and probably a replacement of a young marriageable population by retired and *ipso facto* old population.

GENERAL COMMENTS

It will be interesting to watch the effect on the general birth rate of Canada as or if the people spread out more and more in the newer and more sparsely settled areas from the old and thickly settled. There is at least a suggestion that the last word has not yet been said about the process of declining birth rates. The economic conditions that led to a decline in marriage during the depression would seem to be reflected in first and second births; the elimination of the unusual was reflected in the other orders of birth; the process of passing through periods of very high to moderately low rates on the part of certain races; the false high points created by postponed marriages due to immigrants after years of pioneering marrying *en masse*—all these factors contributed in the direction of causing recent heavy decline in total births, some of them affecting even the specific age rates and consequently not allowed for by standardizing the birth rates. Whether the present situation is a passing through a cycle or a permanent trend remains to be seen when the period of observation by means of reliable vital statistics has been considerably lengthened.

PART I

GENERAL STATEMENT OF RATES AND TREND IN FERTILITY

CHAPTER I

COMPLETENESS OF BIRTH REGISTRATION

There is no available direct approach to the problem of the completeness of birth registrations and all the information that can be used for an indirect check is itself open to the charge of incompleteness. It should be understood that the findings of this chapter are not intended to give a final statement but, owing to the obvious bias of unmeasured factors, only to find the maximum of incompleteness. Setting an upper limit is, however, an important step.

Two ways of treating the problem present themselves. The first is to compare the census aggregates of persons aged 0, 1, 2, etc., with the births of the preceding years, after making allowance for infant deaths. The second is to take a sample (since the amount of labour required for checking individual registrations is very great) of the persons alive at a given moment and find how many of the persons in the sample were registered at birth. Both of these methods have been used for each section of Canada and their results will be considered in this chapter.

COMPARISON OF VITAL STATISTICS AND CENSUS IN THE AGGREGATE

The more refined an analysis involving the census, the more such census inaccuracies as exist will tend to obscure the results. An analysis of the deficiencies of the birth records is perhaps the most delicate job the census may be called on to do.

Errors in the statement of age by the enumerated which result in a concentration on even numbers are indicated in Statement I below.

I.—RATIO OF THREE TIMES THE NUMBER OF PERSONS REPORTING AGE X TO THE TOTAL NUMBER REPORTING AGES $X - 1$, X AND $X + 1$, BY SEX, CANADA, 1931

Units Digit	Tens Digit									
	Males					Females				
	0	1	2	3	6	0	1	2	3	6
0............	–	1·03	0·97	1·08	1·18	–	1·02	1·00	1·12	1·25
1............	0·97	0·99	1·03	0·97	0·85	0·98	0·99	1·00	0·93	0·81
2............	1·02	1·01	0·99	1·02	1·05	1·02	1·00	0·99	1·04	1·05
3............	1·01	0·98	1·01	0·97	1·01	1·01	0·98	1·01	0·97	1·00
4............	1·00	1·01	1·01	0·96	0·92	0·99	1·01	0·99	0·97	0·94
5............	1·00	0·98	0·98	1·05	1·15	1·00	0·98	1·01	1·05	1·14
6............	1·01	1·03	1·01	1·00	0·92	1·01	1·03	1·00	0·99	0·92
7............	1·00	1·00	0·98	0·93	0·97	0·99	0·99	0·97	0·93	0·95
8............	1·00	1·02	1·00	1·09	1·08	1·01	1·03	1·01	1·11	1·09
9............	1·00	1·00	0·92	0·90	0·89	0·99	0·98	0·89	0·88	0·86

It is plain that the concentration at multiples of 2 and 5 shown in the ages 30-40 and 60-70 is relatively unimportant at ages 0-10. We may roughly say, in fact, that for both males and females this type of error increases with age. Concentration at even digits is probably the least harmful of the various types of errors for it can be largely removed by suitable graduation, since the excessive frequency at the even age consists of as many overstatements as understatements. This has been shown by a study of individual changes in age in a sample from two consecutive censuses.*

But, on the other hand, a phenomenon to be found in no other part of the statement makes its appearance at the youngest ages. Consider, for example, the 1931 population of Canada. The number given as age zero is 202,665.† The number three years of age is 224,131. Now, since immigration at very young ages is not an important factor, we must attribute this striking excess of those stated as 3 years old to one of two causes, (a) a decrease in the birth rate or (b) misstatements by the parents of the children enumerated in the census returns. These are discussed below.

* See Appendix 1, page 192.
† The census procedure is to take all ages in completed years.

21

(a) Since the death rate of the early years of life is heavy, there tends to be a sharply decreasing number alive from age to age in the first five years of life. Consider Canadian Life Table No. 1*, for example, where the population is assumed to be stationary at the level of 1931 deaths and a number of births just sufficient to balance those deaths, as quoted in columns 1 and 2 below.

II.—LIFE TABLE AND ACTUAL POPULATION, MALES AND FEMALES, CANADA, 1931

| | Life Table Lz | | Population | |
Age	Males (1)	Females (2)	Males (3)	Females (4)
0	104,237	103,672	102,930	90,738
1	102,042	101,894	102,879	101,489
2	101,076	100,954	111,910	109,668
3	100,536	100,490	113,021	111,110
4	100,153	100,140	112,432	109,241
5	99,869	99,884	112,894	109,723
6	99,619	99,670	114,691	111,711
7	99,392	99,486	114,284	111,431
8	99,188	99,324	114,800	114,047
9	99,000	99,177	115,846	113,330
10	98,840	99,036	117,240	114,330

A very rapid dropping in the birth rate must be postulated to explain the divergence between the figures of columns 1 and 2 on the one hand and 3 and 4 on the other. The figures below show the population at the various ages and the birth and infant mortality rates of the corresponding calendar years. Since the population at age 0 on June 1, 1931, is the result of births for the period June 1, 1930–May 30, 1931, the applicable birth rate is somewhere between the 1930 and the 1931 figure, and similarly for the other years.

III.—BIRTHS, BIRTH RATES AND DEATHS UNDER ONE YEAR OF AGE, CANADA, 1920-1931

Age	Population	Calendar Year	Births	Birth Rate	Deaths under One Year of Age
0	202,068	1931	240,473	23·2	20,360
1	204,365	1930	243,495	23·9	21,742
2	221,578	1929	235,415	23·5	21,674
3	224,131	1928	236,757	24·1	21,195
4	221,673	1927	234,188	24·3	22,010
5	222,607	1926	232,750	24·7	23,692
6	226,402	1925	242,388	26·1	22,310
7	225,715	1924	244,525	26·8	22,709
8	228,847	1923	240,476	26·7	24,833
9	229,178	1922	252,571	28·4	25,553
10	232,180	1921	257,728	29·4	26,280
		1920	253,069	29·6	30,829

While the birth rate is seen to be dropping in the years 1926-31 the absolute number of births increases and infant mortality falls off. The increasing number of births and the falling infant mortality should intensify an age-to-age decrease in the 1931 population for the first five years of life. For the rise shown in the population from ages 5 to 10, however, there is at least a partial explanation in the fall of the births from 1920 to 1926—that fall being only partially counteracted by declining infant mortality.

(b) Mr. George King comments on the error of the census at younger ages in England, in the *Supplement to the 75th Report of the Registrar-General for England and Wales.* The procedure used for the construction of English Life Tables Nos. 6 and 7 was based on the assumption that the population enumerated in the census as ages 0-4 inclusive was correct in total, being merely wrongly distributed. The percentage distribution between the ages 0, 1, 2, 3, 4 used, therefore, was that obtained by calculating the number alive from the births and deaths of the immediately preceding years; the total to which this distribution was applied was that of the census.

* 1931 Census Monograph No. 13.

But Mr. King did not think that this assumption was supported by facts. Says he,[*] "In each of the two tables relating to males and females, respectively, for the two Censuses of 1901 and 1911, and in each of the two similar tables for the single Census of 1911 there is a great deficiency in the infants enumerated in each of the first two years of life, and there is no corresponding excess in the young children aged from 2 to 4 last birthday, the number of such children being in close agreement with the numbers estimated from the births and deaths.   It is true that emigration[**] disturbs a little the statistics based upon the births and deaths, and the effect of that disturbance is cumulative with increasing age."   After showing that the census defect is not explained by emigration, he finishes, ". . . . the conclusion seems to be inevitable that a large number of infants under two years of age escaped enumeration at both the Censuses of 1901 and 1911, more especially so in 1911, although why that should be it is difficult to understand."

In 1916 Dr. J. C. Dunlop, Superintendent of the Statistical Department of the Registrar-General for Scotland, investigating deficiencies in ages 0-4 in the Scottish Census of 1911 by checking from census to birth certificates[†], found that of the cases where identification was achieved (84 p.c. and 81 p.c., respectively, of the number enumerated in Paisley and Haddington, the two registration districts of the investigations), 7·5 p.c. showed misstatement of age.   Of 898 incorrectly reported ages, 789 were overstated and 109 understated.   In only 47 of the 898 instances were the errors more than one year in amount, however.

The census number of children, age 0, instead of being 2,780 was 2,646, i.e., too small by 134 or 4·8 p.c.   The census number at age 1 was 2·9 p.c. short; at age 2, 0·7 p.c. in excess; at age 3, 2·7 p.c. in excess.   Dr. Dunlop's "Table A"[‡] is interesting, as showing the extent of distortion that existed in a census generally considered to be very accurate.

DR. DUNLOP'S TABLE A.—SHOWING NUMBERS OF CHILDREN WHOSE AGES WERE TESTED BY REFERENCE TO BIRTH REGISTERS

Ages Found by Reference to Birth Registers	Ages as Stated in Census Returns					
	0	1	2	3	4	0-4
0....................................	2,626	142	7	3	2	2,780
1....................................	13	2,304	229	2	0	2,548
2....................................	2	13	2,176	231	5	2,427
3....................................	4	8	25	2,051	168	2,256
4....................................	1	6	7	30	1,926	1,970
0-4..................................	2,646	2,473	2,444	2,317	2,101	11,981

Dunlop's method of enquiry, i.e., tracing individuals from the census to the Birth Registers, is obviously unable to show the existence of omissions from the census.   But evidence presented in Appendix I, page 192, on the basis of comparisons made between consecutive censuses, show that actual omissions at the younger ages of life are not of a magnitude great enough to affect materially the calculations to be made below.

There are two ways in which we may make comparisons between the birth registrations and the census using available tabulations.

Method 1.—Taking the figures for the number of births (both sexes) in each month and using a special table giving the number of deaths out of these births month[§] by month, we can find the number attaining one year of age.   Then we may use a life table with an lx graduated by months to find the probability that a child of one year will survive to the census.date.   By adding up the numbers of those who were born in the appropriate months and who live to the census date we arrive at a figure that can be compared with the number of age 1, 2, 3 and 4 living at the census date.   To compare births in the year June 1, 1930–June 1, 1931, with the population under one year of age at the latter date we merely subtracted from the births of the appropriate months the deaths among those births up to June 1.

Method 2.—Taking the figures for the numbers of births (both sexes) in each calendar year, we deduct an estimate of the number of deaths among those births constructed thus:—

---

[*] Loc.cit. p. 15.
[**] In Canada the corresponding force, immigration, would act in the opposite direction.
[†] Journal of the Royal Statistical Society, May 1916, p. 309
[‡] Loc. cit., p. 315.
[§] An unpublished table is made up in the Vital Statistics Branch of the Bureau, giving for the infant deaths of each year the distribution by month of birth and month of death.

· For each province the number of persons dying in the calendar year of birth is found as a percentage of the total number dying under one year of age. This turns out to be somewhat between 70 and 80 p.c. in most cases. We take this percentage of the deaths of the first calendar year and the complementary percentage of those of the subsequent year. For the second year of life it is assumed in all cases that 60 p.c. of the deaths of children aged 1-2 in a given calendar year refer to children who reached their first birthday in that calendar year; for the third and subsequent years of life the deaths are assumed to be equally spread and 50 p.c. is taken.

Using one or both of these methods, the number of persons to be expected in the census was found for each of the first five years of age, the ratios were tabulated for the 1931 Census for the five regional divisions of Canada. It will be seen that the two methods of calculation give essentially similar results.

IV.—COMPARISON OF THE CENSUS POPULATION AGED 0, 1, 2, 3, 4, WITH THE NUMBER CALCULATED
AS ALIVE AT THE CENSUS DATE AT THE SAME AGES FROM BIRTH REGISTRATIONS
BY METHODS 1 AND 2, CANADA AND REGIONAL DIVISIONS, 1931

Regional Division	Census Year of Birth (June-June)	Age Last Birthday at June 1, 1931	Number Alive June 1, 1931 (Census)	Number Surviving June 1, 1931, Calculated from Births Registered		Ratio (Col. 4 : Col. 3)
				Method 1	Method 2	
	(1)	(2)	(3)	(4)	(5)	(6)
		years				
CANADA..............................	1926-1931	0-4	1,072,730	1,060,157		0·99
	1930-1931	0	202,400	224,603		1·11
	1929-1930	1	204,048	217,480		1·07
	1928-1929	2	221,207	210,014	209,462	0·95
	1927-1928	3	223,760	210,720	209,606	0·94
	1926-1927	4	221,315	203,250	202,226	0·92
Maritime Provinces....................	1926-1931	0-4	109,990	104,080		0·95
	1930-1931	0	21,561	21,988		1·02
	1929-1930	1	20,559	20,809		1·01
	1928-1929	2	22,370	20,306	20,365	0·91
	1927-1928	3	22,901	20,901	20,706	0·91
	1926-1927	4	22,589	20,076	19,982	0·89
Quebec...............................	1926-1931	0-4	352,895	357,535		1·01
	1930-1931	0	66,439	75,661		1·14
	1929-1930	1	65,541	72,410		1·11
	1928-1929	2	73,759	70,497	70,039	0·96
	1927-1928	3	74,427	71,027	70,537	0·95
	1926-1927	4	72,729	68,240	67,388	0·94
Ontario..............................	1926-1931	0-4	307,669	317,069		1·03
	1930-1931	0	58,392	66,467		1·14
	1929-1930	1	58,857	64,624		1·10
	1928-1929	2	62,803	62,306	62,196	0·99
	1927-1928	3	63,931	62,709	62,557	0·98
	1926-1927	4	63,656	60,963	60,587	0·96
Prairie Provinces.....................	1926-1931	0-4	250,197	238,168		0·96
	1930-1931	0	46,489	50,278		1·08
	1929-1930	1	49,034	49,559		1·01
	1928-1929	2	51,387	47,279	47,234	0·92
	1927-1928	3	51,721	46,550	46,274	0·90
	1926-1927	4	51,666	45,502	45,005	0·88
British Columbia.....................	1926-1931	0-4	51,979	48,770		0·94
	1930-1931	0	9,519	10,299		1·08
	1929-1930	1	10,017	10,071		1·01
	1928-1929	2	10,888	9,637	9,627	0·89
	1927-1928	3	10,780	9,471	9,432	0·88
	1926-1927	4	10,775	9,302	9,264	0·86

For all of the five regional divisions the ratios for ages 0 and 1 are greater than 1·00, and for the subsequent ages less. This is a reflection of the overstatement of age in the census to which reference has been made in the foregoing pages. Though considerable regional variation appears in the ratios of column 6 for the total of ages 0-4, the 0·99 obtained for all of Canada appears to show satisfactorily the amount by which birth registrations are below the census, on the average, throughout the country.

Therefore, 0·99 is a maximum figure for completeness of birth registrations throughout the country. But, though this figure takes account of overstatements within the age group 0-4, it would be too high if there was a tendency for the ages of children to be stated as over 5 when they were actually less than 5. Such a tendency is indicated in the discussion in Appendix 1, page 192, hence it would be desirable to calculate the number to be expected at the census date at ages 5-9 on the basis of birth registrations. To do this for the 1931 Census would be unsatisfactory, in that it would require going back in the birth registration record to a period in which there was a registration area of only eight of the provinces, and further it would involve using registrations less complete than those of the more recent period. Hence, we have confined our calculations to the Prairie Provinces, making use of the 1936 Census. The statement below gives the results, which are graphed in Chart 1.

V.—COMPARISON OF THE CENSUS POPULATION AGED 0, 1, 2, 3, 4, WITH THE NUMBER CALCULATED AS ALIVE AT THE CENSUS DATE AT THE SAME AGES FROM BIRTH REGISTRATIONS BY METHOD 1, 1931 AND 1936, AND OF AGES 5, 6, 7, 8, 9, 1931, PRAIRIE PROVINCES

Province	Census Year of Birth (June-June)	Age Last Birthday at June 1, 1931	Number Alive June 1, 1931 (Census)	Number Surviving June 1, 1931, Calculated from Births Registered (Method 1)	Ratio (Col. 4 ÷ Col. 3)
	(1)		(2)	(3)	(4)	(5)

AGES 0-4, 1931

		years			
Prairie Provinces................................	1926-1931	0-4	250,197	239,168	0·96
	1930-1931	0	46,459	50,278	1·08
	1929-1930	1	49,034	49,559	1·01
	1928-1929	2	51,387	47,279	0·92
	1927-1928	3	51,721	46,550	0·90
	1926-1927	4	51,566	45,502	0·88
Manitoba....................................	1926-1931	0-4	66,599	66,325	1·00
	1930-1931	0	12,086	13,460	1·11
	1929-1930	1	13,319	13,405	1·01
	1928-1929	2	13,551	13,066	0·96
	1927-1928	3	14,097	13,264	0·94
	1926-1927	4	13,526	13,130	0·97
Saskatchewan	1926-1931	0-4	105,226	98,465	0·94
	1930-1931	0	19,247	20,308	1·06
	1929-1930	1	20,501	20,120	0·98
	1928-1929	2	21,562	19,654	0·91
	1927-1928	3	21,773	19,335	0·89
	1926-1927	4	22,053	19,048	0·86
Alberta....................................	1926-1931	0-4	78,372	74,378	0·95
	1930-1931	0	15,159	16,510	1·09
	1929-1930	1	15,214	16,034	1·05
	1928-1929	2	16,164	14,559	0·90
	1927-1928	3	15,831	13,951	0·88
	1926-1927	4	15,957	13,324	0·83

V.—COMPARISON OF THE CENSUS POPULATION AGED 0, 1, 2, 3, 4, WITH THE NUMBER CALCULATED
AS ALIVE AT THE CENSUS DATE AT THE SAME AGES FROM BIRTH REGISTRATIONS BY
METHOD 1, 1931 AND 1936, AND OF AGES 5, 6, 7, 8, 9,
1931, PRAIRIE PROVINCES—Con.

Province	Census Year of Birth (June-June)	Age Last Birthday at June 1, 1931	Number Alive June 1, 1931 (Census)	Number Surviving June 1, 1931, Calculated from Births Registered (Method 1)	Ratio (4 : 3)
	(1)	(2)	(3)	(4)	(5)

AGES 0-4, 1936

Province		years			
Prairie Provinces.....................................	1931-1936	0-4	231,134	234,251	1·01
	1935-1936	0	44,190	46,649	1·06
	1934-1935	1	42,167	45,819	1·09
	1933-1934	2	46,823	45,729	0·98
	1932-1933	3	48,373	47,624	0·98
	1931-1932	4	49,583	48,430	0·98
Manitoba...	1931-1936	0-4	61,380	63,276	1·03
	1935-1936	0	11,684	12,614	1·08
	1934-1935	1	11,167	12,382	1·11
	1933-1934	2	12,340	12,076	0·98
	1932-1933	3	12,826	12,963	1·01
	1931-1932	4	13,334	13,242	0·99
Saskatchewan.....................................	1931-1936	0-4	93,731	93,916	1·00
	1935-1936	0	17,803	18,400	1·03
	1934-1935	1	17,174	18,371	1·07
	1933-1934	2	18,996	18,517	0·97
	1932-1933	3	19,670	19,165	0·97
	1931-1932	4	20,088	19,454	0·97
Alberta...	1931-1936	0-4	76,023	77,059	1·01
	1935-1936	0	14,703	15,628	1·06
	1934-1935	1	13,826	15,066	1·09
	1933-1934	2	15,477	15,136	0·98
	1932-1933	3	15,877	15,497	0·98
	1931-1932	4	16,140	15,734	0·97

AGES 5-9, 1931

Province		years			
Prairie Provinces.....................................	1926-1931	5-9	249,867	235,402	0·94
	1930-1931	5	49,576	48,681	0·98
	1929-1930	6	50,365	48,783	0·96
	1928-1929	7	49,359	46,719	0·95
	1927-1928	8	50,584	46,067	0·91
	1926-1927	9	49,753	45,129	0·91
Manitoba...	1926-1931	5-9	67,410	65,205	0·97
	1930-1931	5	13,139	13,033	0·99
	1929-1930	6	13,472	13,195	0·98
	1928-1929	7	13,313	12,911	0·97
	1927-1928	8	13,893	13,135	0·95
	1926-1927	9	13,596	13,021	0·96
Saskatchewan.....................................	1926-1931	5-9	102,394	96,926	0·95
	1930-1931	5	20,074	19,663	0·98
	1929-1930	6	20,672	19,805	0·96
	1928-1929	7	20,378	19,421	0·95
	1927-1928	8	20,751	19,147	0·92
	1926-1927	9	20,619	18,890	0·92
Alberta...	1926-1931	5-9	80,063	73,183	0·98
	1930-1931	5	16,366	15,985	0·98
	1929-1930	6	16,421	15,783	0·96
	1928-1929	7	15,768	14,387	0·91
	1927-1928	8	15,949	13,815	0·87
	1926-1927	9	15,568	13,213	0·85

RATIO OF CENSUS POPULATION 0-4, 1931 AND 0-9, 1936
TO NUMBER CALCULATED FROM BIRTH REGISTRATIONS
AS ALIVE AT CENSUS DATES, PRAIRIE PROVINCES
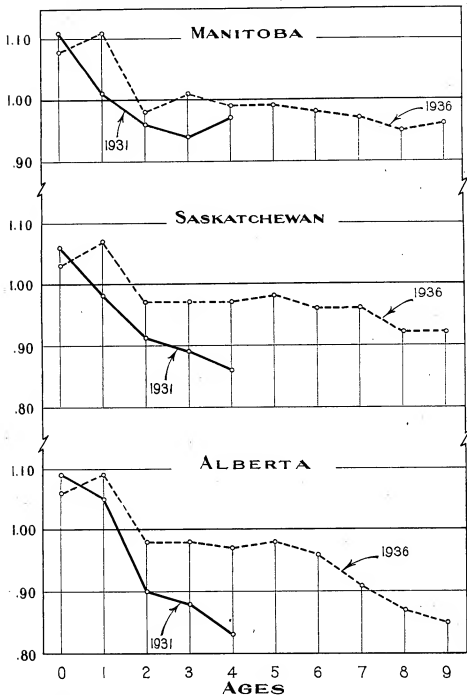
CHART 1

From the statements and chart the following results stand out:—

(1) At the ages 0-4 a striking improvement (0·96 to 1·01) will shown from the comparison of 1926-31 births with the 1931 Census and the comparison of 1931-36 births with the 1936 Census. This improvement extends into every age group and through all three provinces. The only ways in which this would be explained away is by the 1936 Census being less complete than the 1931, a ridiculous supposition, or by migration being important in 1931. This will be considered later.

(2) Using comparisons based on the 1936 Census alone there is a much closer approximation between births and census of the earlier ages than at the later. In fact the age-5-9 comparisons of 1936 seem a replica of the age-0-4 comparisons of 1931. Further, in the figures at the later ages 7, 8 and 9, sloping so sharply downwards, we have an indication that the migration may be upsetting the calculations. Such balance of immigration as existed would obviously act in the direction of lowering the births in comparison with the census.

The Effect of Migration on the Foregoing Comparisons.—It is, of course, plain that the comparison of the births with the census should take immigration into account. Unfortunately, the immigrants are not recorded by single years of age and, in any case, there are no direct statistics of the movement from province to province within the Dominion. But we can find the effect of migration at least roughly by ascertaining what percentage of the population of age 0-4 in each province in 1931 was not born in that province, being born either in another province or abroad. Following are the percentages so calculated:—

VI.—CHILDREN) -4 YEARS OF AGE SHOWING NUMBER BORN IN PROVINCE AND PERCENTAGE NOT BORN IN PROVINCE, CANADA, BY PROVINCES, 1931

Province	Children 0-4 Years		
	Total (1)	Born in Province (2)	P.C. Not Born in Province (3)
Prince Edward Island	9,145	8,877	2·9
Nova Scotia	53,290	51,489	3·3
New Brunswick	47,586	45,623	4·1
Quebec	352,895	345,506	2·1
Ontario	307,609	295,578	3·9
Manitoba	66,599	63,062	5·3
Saskatchewan	105,226	99,789	5·2
Alberta	78,372	71,867	8·3
British Columbia	51,979	47,522	8·6

Of course, the percentages in column 3 of Statement VI should not be deducted from the number the census gives as living at ages 0-4 for purposes of comparison with the births of the preceding years, since the birth registrations include cases of infants who were born in the given province and moved elsewhere before the taking of the census and who, therefore, should rightly be deducted from the births. These two corrections would partly balance one another though the first mentioned is undoubtedly the more important. Some idea of the extent of movement is given by the ratio to the number of persons 0-4 living in one province of the number born in that province but living elsewhere in Canada (column 3 below).

VII.—RATIO OF NUMBER 0-4 YEARS OF AGE BORN IN PROVINCE BUT LIVING ELSEWHERE IN CANADA TO THE NUMBER 0-4 YEARS OF AGE LIVING IN THE PROVINCE, CANADA, BY PROVINCES, 1931

Province	Population 0-4		
	Living in Province (1)	Born in Province but Living Elsewhere in Canada (2)	P.C. Col. 2 Forms of Col. 1 (3)
Prince Edward Island	9,145	131	1·43
Nova Scotia	53,290	636	1·19
New Brunswick	47,586	812	1·71
Quebec	352,895	3,178	0·90
Ontario	307,609	4,311	1·40
Manitoba	66,599	3,103	4·66
Saskatchewan	105,226	3,968	3·77
Alberta	78,372	2,410	3·08
British Columbia	51,979	1,183	2·28

The net correction by which the ratios of completeness given in Statements IV and V must be increased on account of the balance of migration is thus something between zero and the percentages of column 3 of Statement VI.

It will be noted that throughout this section we have compared the numbers of children at the census date with the numbers to be expected on the basis of births and deaths in the appropriate years previous to the census, instead of calculating back from the census date to the year of birth and comparing directly with the total of births. The latter method would apparently render the results more exact but they would differ from the figures given in this section by less than 0·5 p.c. It was felt that no object would be served by calculating percentages of incompleteness closer than to the nearest unit for it was not desired to facilitate comparisons, such as between provinces, to which the data seemed unsuited.

SEARCH FROM THE CENSUS TO BIRTH REGISTRATIONS

Recognizing the difficulties of making a direct comparison between the census and the records of births and deaths, a sample of children was taken from the census records of 1931 and for each province a record of registration could be found. No infants were included in the search unless the census gave their birthplace as the province of residence on June 1, 1931.

Prince Edward Island.—In the case of Prince Edward Island, where a previous rough survey had indicated serious deficiency in reporting, the search was fairly thorough. Every child reported as under one year of age in the census of June 1, 1931, was searched for in the registration files. Out of the total of about 1,500, 357 or 20 p.c. were not found.

Nova Scotia.—The sample for Nova Scotia was obtained by the counting out of every fifth census book, taking districts in numerical order and sub-districts within the district likewise in numerical order. The comparison here too was between children under one year enumerated in the Census of 1931 and birth registration for births occurring from June, 1930, to May, 1931. The result was as follows for the province as a whole and three municipalities:—

Item	Total Cards Taken from Census Schedules	Matched with Births Transcripts	
		No.	P.C.
Nova Scotia	2,067	1,774	86
Halifax	291	248	85
Sidney	81	65	80
Glace Bay	151	122	81

The search was conducted first in the county in which the child was resident at the time of the census and then in the entire province after the birth certificates for the province had been arranged in numerical order.

New Brunswick.—The sample chosen for New Brunswick was a random one for cities and purposive for towns, villages and parishes. In the cities of Moncton, Saint John and Fredericton, one-fifth of the books were counted out. For the rest of the province, one town or village out of five was taken in order to secure even geographical distribution and a proportion of French to English speaking families equal to that in the province as a whole. Out of 1,865 cases thus abstracted from the census and written down on cards, 1,668 were matched with birth certificates, giving a completeness of 89 p.c. Cities showed a deficiency of 6 p.c., towns and villages 3 p.c., and rural parishes 13 p.c., though of course these figures should be interpreted with the smallness of the total sample in mind.

The 1,100 infants who had died before the census date were sampled in the proportion of one-fifth, and among the 169 of the sample who were born before June 1, it was found that 163 had been registered, leaving a deficiency of less than 4 p.c.

Quebec.—The sample for Quebec was obtained by arranging the books in the numerical order of the electoral districts in three separate series, for cities, towns and rural parts respectively, and selecting every twelfth book in order in each series. Owing to the size of the province the search had to be limited in each case to the county concerned, except that for any child in Montreal

and Jesus Islands the search was conducted throughout the whole of the islands. However, about 99·5 p.c. of births were found to take place in the county of residence. The results were as follows:—

Item	Total Cards Taken from Census Schedules	Matched with Birth Transcripts	
		No.	P.C.
Quebec..	5,473	4,974	91
Montreal Island..	1,557	1,324	85
Remainder of province—			
Cities..	731	679	93
Towns..	260	242	93
Rural..	2,925	2,729	93

A search was likewise made for the birth certificates corresponding to 1,151 death returns and 1,099 were found, making 95 p.c. completeness. Here Montreal Island was conspicuously poorer than the rest of the province. From Indian Reserves 227 names were taken from census schedules and only 130 were found. Among religious denominations on Montreal Island the Roman Catholic was by far the most complete, showing 91 p.c. against the 85 p.c. of the island as a whole. Registrations of French children were likewise high, being 94 p.c. for the province.

These figures, like the ones given for other provinces, are the result of search among births certificates undertaken in the office of the Dominion Bureau of Statistics. But in the case of Quebec, Dr. Parrot, the Provincial Registrar, assisted in the search for the 499 cards which the Bureau was unable to find. He was able to find 115 cards out of the 266 cards for the province other than Montreal Island, of which the Bureau verified 104, and he found 47 for Montreal Island. These bring the provincial registration to 94 p.c. of completeness.

Ontario.—In Hamilton, Ottawa, London and Windsor every fifth book in numerical order was taken from the census. In the remainder of the province every tenth book in numerical order was taken. The figures for the four above-named cities were halved before aggregating for the provincial completeness of registration. As in Quebec, searches were limited to the county of residence at the time of the census, but a test was made of the percentage of births which are registered elsewhere than in county of regular residence, and a factor applied to the cards matched, which brought the provincial average from 89 p.c. (as shown below) to 92 p.c.

Item	Total Cards Taken from Census Schedules	Matched with Birth Transcripts	
		No.	P.C.
Ontario..	5,763	5,138	89
Cities of 40,000 and over..	1,596	1,439	91
Cities under 40,000...	760	682	90
Towns...	757	668	88
Rural..	2,660	2,349	88

Manitoba.—In the cities of Manitoba every fifth book was taken. For the rest of the province the sample was obtained by a counting out of every fifth town, every fifth village, and every fifth rural municipality when arranged by order of census divisions. The results were as follows:—

Item	Total Cards Taken from Census Schedules	Matched with Birth Transcripts	
		No.	P.C.
Manitoba..	2,402	2,164	90
Cities...	699	638	91
Towns...	138	134	97
Villages and rural municipalities..	1,565	1,392	89

Saskatchewan.—For the cities and towns of Saskatchewan every fifth book was taken and, in rural parts, including villages, every seventh book was taken after the schedules were arranged by census divisions.

Item	Total Cards Taken from Census Schedules	Matched with Birth Transcripts	
		No.	P.C.
Saskatchewan[1]	2,806	2,454	88
Cities	573	541	94
Towns	149	130	87
Rural municipalities	2,249	1,938	86

[1] Cities reduced by 2/7.

Alberta.—The sample for Alberta was obtained by taking every fifth book in the group of cities, Calgary, Edmonton, Lethbridge and Medicine Hat; one book from each of the cities Drumheller, Red Deer and Wetaskiwin; and every seventh book in towns and rural municipalities. The results were as follows:—

Item	Total Cards Taken from Census Schedules	Matched with Birth Transcripts	
		No.	P.C.
Alberta[1]	2,203	1,986	90
Cities	762	700	92
Towns	142	135	95
Rural (including villages)	1,516	1,351	89

[1] Cities reduced by 2/7.

Mr. Mackie, Deputy Registrar-General of Alberta, studied the 21 cases that could not be matched for the city of Edmonton and was able to account for 15 of them as misspelled names, adopted children, etc. Mr. Mackie expressed the opinion that the check from the census gave a minimum far below the actual level of completeness. He gave the experience in the search among the 8,851 school children in the year 1932-33 (according to Alberta regulations teachers report the names of all children born in Alberta when the latter first enter school), and approximately 97 p.c. of the school children born in Alberta were thus found to be registered—which constitutes a very important piece of evidence.

British Columbia.—The sample for Vancouver, Victoria and New Westminster was obtained by taking every one-fifth of the census books. In Vancouver and Victoria they were chosen to represent, as far as could be ascertained, the different elements in the population of these cities. In New Westminster the books for the sample were obtained by counting out. For the remainder of the province there were two samples taken—one purposive according to racial origin and the other random. The random sample was obtained by counting out one-fifth of all the books that had not been included in the purposive sample.

Item	Total Cards Taken from Census Schedules	Matched with Birth Transcripts	
		No.	P.C.
British Columbia[1]	1,862	1,622	87
Larger cities	829	748	90
Purposive sample of smaller cities	339	323	95
Purposive sample of rural parts	797	724	91
Random sample of smaller cities	120	103	86
Random sample of rural parts	686	561	82

[1] Purposive samples of smaller cities and rural parts reduced by 4/5.

Searches were carried out, first throughout the county of residence at the time of the census, and then throughout the entire province.

Omissions from the Census.—In order to find out how many young infants were omitted from the census returns when a census happened to be taken shortly after their birth, samples were collected from the census returns of 1931 and 1936 for the province of Alberta. A description of the method of collecting these samples is given in Appendix 1, page 192. In a sample of 1,231 males 0-9 years old there were 14 of stated age 5 in the 1936 Census who were omitted from the 1931 Census, two of stated age 6, one of stated age 7, (whose families were located in 1931). In a similar manner, out of 1,220 females 0-9 years old, 9 who were stated age 5 in 1936 were omitted in 1931 and two stated age 6. The ratio of the omission of males to the number 0-9 in the sample is 0·014 and for the females it is 0·009, or 0·012 for both sexes.

Estimation of Non-Measurable Factors Affecting Sample Investigation.—The foregoing percentages of completeness of birth registrations must be taken as absolute minima. There is only one way in which they could be overestimates, viz., through the existence of a tendency for infants to be missed entirely both in the census and in the Vital Statistics. In practice this is unlikely to amount to a great deal as the evidence of the preceding paragraph shows. There is strong reason to believe that a good many of the 1·2 p.c. above referred to were really only 4 years of age in 1936 and therefore would not have been born in 1931; but let us assume that there are enough other children missed out in both 1931 and 1936 to bring the total omissions from the census (not including overstatements) at age zero to 2 p.c. which is a high figure in the light of every test that has been performed. Further assume that in this specially select group of infants which the census enumerator misses there is a deficiency of registration of 50 p.c.—which is higher than any group of infants investigated. Even on these exaggerated assumptions, omissions in the census could only conceal an incompleteness of registrations of 1 p.c. in the tests performed.

Consider, on the other hand, the number of ways in which the figures for completeness in birth returns given above could be understatements. First, there is the occurrence very frequently noted in the revision of the census that persons who have migrated to this country from the United States show children with birthplace Canada whose age indicates that they were born previous to the date of migration. Where this happens in the case of immigrants from the United States it is usually corrected in the revision of the census, but where it happens in the case of Canadians born outside of their province of residence there is no way of correcting it. Mr. Mackie states in correspondence that out of the 8,851 school pupils for which registrations were searched in Alberta, all of whose parents stated that they were born in Alberta, fully 308 on later investigation were found to have been born out of the province. With the same ratio for errors in statement to the census enumerator, about 4 p.c. of the deficiency in the sample survey of completeness would be accounted for, or from one-third to one-half of the unmatched cards.

The misspelling of names by the census enumerators is a factor of unknown weight. Illegitimate children and children adopted subsequent to registration and before the census were difficult to trace. Errors on the part of clerks in making out the cards from the census schedules (understandable in view of the indistinct writing of many of the enumerators), imperfect search by the clerks seeking to match the transcripts—in fact, any kind of clerical error from beginning to end—would result in an underestimate of the completeness of registrations in the sample investigation.

In all, some 26,205 names were searched from census schedules to birth transcripts, and the aggregate percentage matched was 88 (see Table 1, Part III, page 132). In view of the considerations above outlined, however, we think it not unreasonable to put the deficiency of birth registrations at not over half the percentage unmatched.

CONTINUATION OF CANADIAN LIFE TABLES, 1931, BACK TO AGE ZERO

In Tables 2 and 3 Part III, pages 133 and 134, are given the completions to age zero of the Life Tables, males and females, for Canada and each of its regional divisions. They are obtained in the following manner:—

The deaths during the years 1930-32 are taken as arising from the births of the same period. This is not strictly accurate, but brings about a very considerable simplification in arithmetic. The amount of error it introduces will be considered below. Deducting successively from these births the deaths of less than 1 day, of 1 to 2 days, etc., we obtain numbers proportional $l$to l_0, $l_{\frac{1}{365}}$, $l_{\frac{2}{365}}$, etc. The l_1 was determined from the 100,000 assumed at age 5 by working backward using the following values of q:—

$$q_1 = \frac{d_1}{\frac{1}{2}\beta_{1928} + \beta_{1929} + \beta_{1930} + \frac{1}{2}\beta_{1931} - (d_o\,_{(1929)} + d_o\,_{(1930)} + d_o\,_{(1931)})} , \text{ etc.}$$

To obtain $l_{\frac{1}{12}}$ the figure for $\beta_{1930-32} - d_o\,_{-\frac{1}{12}}$ was multiplied by the factor $\frac{l_1}{\beta_{1930-32} - d_o}$

similarly $l_{\frac{2}{12}}$ was given by $\left(\beta_{1930-32} - d_o\,_{-\frac{2}{12}}\right)\left(\frac{l_1}{\beta_{1930-32} - d_o}\right)$, etc. L_x was taken as $\frac{l_x + l_{x+1}}{2}$

from $x = 1$ to $x = 4$ and as $\frac{l_x + l_{x+\frac{1}{12}}}{2}$ for x from $\frac{1}{12}$ to $\frac{11}{12}$; as $\frac{l_x + l_{x+\frac{1}{52}}}{2}$ for x from $\frac{1}{52}$ to $\frac{3}{52}$

and as $l_x + l_{x+\frac{1}{365}} + (\frac{1}{52} - \frac{6}{365})$ for $x = \frac{6}{365}$.

T_x was taken as $\frac{1}{2} l_x + \sum\limits_{i=o}^{4-x} l_{x+i+1} = \sum\limits_{i=o}^{4-x} L_{x+i} = L_{x+} \sum\limits_{i=o}^{4-x} L_{x+i+1}$ for ages 1 to 4.

Between 1 and 12 months T_x was taken as $T_{x+\frac{1}{12}} = T_{x+\frac{1+1}{12}} + \frac{1}{12} L_{x+\frac{1}{12}}$;

for 1 and 2 weeks as $T_{x+\frac{1}{52}} = T_{x+\frac{2}{52}} + \frac{1}{52} L_{x+\frac{1}{52}}$;

for 3 weeks as $T_{x+\frac{3}{52}} = T_{x+\frac{1}{12}} + (\frac{1}{12} - \frac{3}{52}) L_{x+\frac{3}{52}}$;

for 0 to 6 days as $T_{x+\frac{i}{365}} = T_{x+\frac{i+1}{365}} + \frac{1}{365} L_{x+\frac{i}{365}}$.

The more precise formulae for the q's would be:—

$$|_{\frac{1}{365}} q_o = \frac{d_{\left(o - \frac{1}{365}\right)\,1930-32}}{\beta_{1930-32} - \frac{1}{730}(\beta_{1932} - \beta_{1929})}$$

$$|_{\frac{1}{52}} q_{\frac{1}{365}} = \frac{d_{\left(\frac{1}{365} - \frac{8}{365}\right)\,1930-32}}{\beta_{1930-32} - \left(\frac{1}{365} + \frac{1}{730}\right)(\beta_{1932} - \beta_{1929})}$$

$$|_{\frac{1}{52}} q_{\frac{2}{52}} = \frac{d_{\left(\frac{2}{52} - \frac{3}{52}\right)\,1930-32}}{\beta_{1930-32} - \left(\frac{1}{52} + \frac{1}{104}\right)(\beta_{1932} - \beta_{1929})}$$

$$|_{\frac{1}{12}} q_{\frac{3}{52}} = \frac{d_{\left(\frac{3}{52} - \frac{1}{12}\right)\,1930-32}}{\beta_{1930-32} - \left(\frac{2}{52} + \frac{1}{104}\right)(\beta_{1932} - \beta_{1929})}$$

whereas, actually, $\beta_{1930-32}$ was used as the denominator in every case.

But since the births for Canada numbered 235,666 in 1932 and 235,415 in 1929, the difference is small. Even for the last month of the year the theoretically correct denominator (for males where the difference is greater) is 369,556 against 369,373 as actually used—a difference of 0·05 p.c. This would barely affect the fifth place of decimals in q_x, and the method actually employed has the very great advantage in convenience of a constant denominator for all the q_x's less than 1 year.

Though the investigations of incompleteness methods and results of which are shown on the preceding pages do not give entirely compatible results, and though they show rather wide differences between provinces, they indicate that the understatement of births is certainly not greater than 6 or 7 p.c. and, on the other hand, that it is probably not very much less than 3 or 4 p.c. We do not believe that the methods used are sufficiently refined to take precise account of differences between provinces and therefore it would seem best to assume for the Dominion as a whole, and for each part of it separately, for purposes of construction of a completion to age zero of Canadian Life Table No. 1, a deficiency of registrations of 5 p.c. This will be more reliable than the table constructed without an allowance for incompleteness as long as there is an actual deficiency of more than 2·5 p.c. Tables on this basis are shown on pages 139 and 140.

It may be interesting, in view of the fact that births are almost universally favoured for the computation of the exposed to risk in the first years of life in mortality tables based on the general population, to find the difference in the expectation of life at age zero on the two bases. If we assume no deficiency in births the expectation at birth of a Canadian male is 59·62 years; assuming 5 p.c. deficiency it is 60·00 years and assuming 10 p.c. deficiency, 60·37 years. We find evidence that the increase in calculated expectation which results from the assumption of a deficiency in births is a linear function of that deficiency. The statement below shows that this is also true of l_0, when we take l_0 as fixed at 100,000.

VIII.—RELATIONSHIP BETWEEN THE ASSUMPTION OF A DEFICIENCY IN BIRTH REGISTRATIONS
AND THE VALUES OF THE EXPECTATION OF LIFE AND THE NUMBER
LIVING. LIFE TABLE FOR CANADA, MALES, 1930-1932

Item	Value of $\mathring{e}_0$	First Difference	Value of l_0	First Difference
Assuming no deficiency in birth registrations............................	59·62		113,035	
		0·38		−717
Assuming 5 p.c. deficiency in birth registrations......................	60·00		112,318	
		0·37		−704
Assuming 10 p.c. deficiency in birth registrations.....................	60·37		111,614	
Average difference per assumption of 1 p.c. deficiency................		0·075		−142

CHAPTER II

THE TREND OF THE CANADIAN BIRTH RATE IN THE POST-WAR PERIOD

INTRODUCTION

World Trend.—The trend of mortality, and particularly of mortality at the younger ages, the reduction in which produced such important effects in the increase of population during the nineteenth century in the European countries and those with which they came in contact, has received a great deal of attention by students of population.

This decline in mortality at the younger ages has been continued in the post-War period in the countries of western civilization at an even augmented rate. While on humanitarian grounds and from the standpoint of human happiness this is a fact over which to exult, one of the most important tasks of Vital Statistics is to measure the success which has been attained in this respect by various public health measures, higher standards of living and the other factors which affect mortality. The effect on the increase in population of saving life has been checked by another factor which has revealed itself to an astonishing degree in the post-War period in English speaking countries and the countries of Northern and Western Europe in general. This is the decline in the birth rate.

A declining birth rate was by no means unknown before the Great War. The birth rate of France had long been notoriously low. That of England and Wales was falling noticeably and steadily from the late 1870's and the birth rate of Germany commenced to fall from the turn of the century. But the increase in the rate of decline in the post-War period throughout the countries mentioned above has been so notable as to attract special attention; it has given rise to more intensive methods of measuring the decline and the factors which produced it.

As examples of the extent of the decline, the English birth rate, which was 22·4 per thousand in 1921 and 20·4 in 1922, had declined to 14·4 in 1933 and appeared to stabilize itself between 14 and 15 during the following years. The Italian rate was in the neighbourhood of 30 in the years 1921-23 but had fallen to 23·8 by 1932 and, in spite of a tendency to stabilize, showed further slight declines until it reached 22·4 in 1936. The German birth rate, which was 25·3 in 1921 and 23·0 in 1922, had fallen to 14·7 by 1933 but from this point showed a surprising rally which may be largely due to State encouragement of marriage and parenthood. This rally brought the rate to 18·9 in 1935 and 19·0 in 1936. The similarity of these figures indicates, perhaps, the upper limit of effectiveness.

It might be held that under post-War conditions in Europe, with opportunities of supporting large populations in the manufacturing of products from whose exchange they would obtain the surplus of raw materials and food supplies required for the maintenance of such an economy, a decline in birth rate was the easiest and most natural means of removing the pressure on the standard of living which an excessive population under these conditions would produce. But, if we look at the newer countries of the British Empire where it must be held that the optimum of population has by no means yet been reached, we find a similar trend in the post-War birth rate. New Zealand's rate fell from 23·3 in 1921 and 23·2 in 1922 to 16·1 in 1935, the year 1936 showing a slight recovery to 16·6. These slight recoveries of 1935 and 1936 appear most probably to be reactions from the economic depression of the preceding years. Australia showed a rate of about 25 per thousand in 1921 and 1922. In the years 1932-35 it was between 16 and 17, although 1936 showed a slight increase to 17·1. The birth rate of the white population of the Union of South Africa declined from 28·4 in 1921 and 27·5 in 1922 to reach its lowest point, 23·4 in 1934, the two following years showing a slight increase to 24·4 in 1936.

35

Finally, Canada, which had a rate of 29·4 in 1921 and 28·4 in 1922, showed a decline which, though apparently hurried some by the depression, has indicated no reaction since and registered the lowest rate of any of the years between 1921 and 1936 in the last named year, when it stood at 20·0 per thousand.

The United States (Registration Area) showed a birth rate which declined from 24·2 in 1921 and 22·3 in 1922 to 16·6 in 1933 and, although 1934 and 1935 showed slightly higher rates, the year 1936 registered 16·6 again.

The rates for the countries which have been mentioned are shown, year by year, in Statement IX, from which it will be noted that the decline manifested itself throughout the whole period and was by no means a mere reflection of the recent great economic depression. The statement contains, for purposes of comparison, a few countries which are neither English speaking nor European. It will be seen that in some of these, as in the case of Japan, there is evidence of a downward movement although the Japanese birth rate at the end of the period shown in the statement was slightly higher than the Canadian birth rate at the beginning of the period.

IX.—BIRTH RATES[1] IN VARIOUS COUNTRIES, 1921-1936

Country	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Canada (nine provinces)......	29·4	28·4	26·7	26·8	26·1	24·7	24·3	24·1	23·5	23·9	23·2	22·5	20·9	20·5	20·3	20·0
Australia................	25·0	24·7	23·8	23·2	22·9	22·0	21·6	21·3	20·3	19·9	18·2	16·9	16·8	16·4	16·6	17·1
Austria.................	23·2	23·1	22·4	21·6	20·5	19·1	17·8	17·5	16·7	16·3	15·0	14·2	13·3	13·2	13·1	
Belgium.................	21·8	20·4	20·4	19·9	19·8	19·0	18·3	18·4	18·1	18·7	18·2	17·4	15·5	16·0	15·4	15·1
Bulgaria................	40·2	40·5	37·7	39·8	36·9	37·4	33·2	33·1	30·6	31·4	29·4	31·5	29·2	30·0	26·2	25·6
Ceylon..................	40·7	39·1	38·5	37·5	39·9	42·0	41·0	41·9	38·3	39·7	37·4	37·6	38·6	37·2	34·4	35·5
Chile...................	39·2	38·9	42·3	40·9	39·8	40·1	42·8	42·6	41·9	39·8	34·9	33·8	34·1	34·1		
Czechoslovakia..........	29·2	28·2	27·3	25·8	25·1	24·6	23·3	23·3	22·4	22·7	21·5	21·0	19·2	18·7	17·9	17·4
Denmark................	24·0	22·2	22·3	21·8	21·0	20·5	19·6	19·6	18·6	18·7	18·0	18·0	17·3	17·8	17·7	17·8
Egypt...................	42·3	43·2	43·0	43·0	42·8	43·2	44·0	43·3	43·7	44·6	42·3	41·1	42·1	40·3	39·4	
Eire....................	19·7	19·5	20·5	21·1	20·8	20·6	20·5	20·1	19·8	19·9	19·5	19·1	19·4	19·5	19·6	19·0
England and Wales.......	22·4	20·4	19·7	18·8	18·3	17·8	16·7	16·7	16·3	16·3	15·8	15·3	14·4	14·8	14·7	14·8
Estonia.................	20·3	20·2	20·1	19·2	18·3	17·9	17·7	18·0	17·1	17·4	17·0	16·2	15·4	15·9	16·1	
Finland.................	25·0	24·1	23·7	22·4	22·3	20·7	21·7	21·1	21·5	20·9	20·6	19·0	18·7	17·4	18·1	18·5
France..................	20·7	19·3	19·1	18·7	19·0	18·8	18·2	18·3	17·7	18·0	17·5	17·3	16·2	16·2	15·3	15·0
Germany................	25·3	23·0	21·2	20·6	20·8	19·6	18·4	18·6	18·0	17·6	16·0	15·1	14·7	18·0	18·9	19·0
Greece..................	24·5	22·6	19·0	21·2	29·9	30·7	29·3	30·5	29·0	31·4	30·9	31·0	28·8	28·8	31·2	28·3
Hungary................	31·5	30·6	29·2	28·6	28·4	27·4	25·8	26·4	25·1	24·9	23·7	22·4	22·0	21·9	21·0	20·0
Iceland.................	27·1	26·1	26·5	25·3		26·6	25·8	24·8	24·9	25·8	25·5	25·7	24·4	22·5	22·8	22·2	22·1
India (British).........	32·3	31·0	35·1	34·4	33·6	34·8	35·3	36·8	35·3	36·9	34·4	34·1	35·5	33·6	34·9	35·4
Italy...................	30·2	30·8	30·0	29·0	28·4	27·7	27·5	26·7	25·6	26·7	24·8	23·8	23·7	23·4	23·2	22·4
Japan...................	35·1	34·2	34·9	35·1	34·9	34·8	33·4	34·4	33·0	32·4	32·2	32·9	31·5	30·0	31·6	29·0
Jamaica................	34·9	37·3	38·2	36·8	34·0	38·5	34·8	35·8	34·2	37·0	34·8	32·2	32·9	31·2	33·4	32·4
Latvia..................	19·7	21·6	21·9	22·2	22·0	22·0	22·1	19·1	18·8	19·6	19·9	19·4	17·8	17·2	17·6	18·1
Netherlands.............	27·7	26·1	26·2	25·1	24·2	23·8	23·1	22·9	23·0	22·9	23·0	22·0	21·0	20·8	20·2	20·2
Newfoundland...........	27·2	27·8	27·8	25·6	26·0	27·0	25·5	24·9	24·2	25·5	25·8	24·0	25·4	23·4	25·0	25·2
New Zealand............	23·3	21·2	21·0	21·0	21·2	21·0	20·2	19·0	19·0	18·9	18·4	17·1	16·6	16·5	16·1	16·6
Northern Ireland........	23·2	22·7	23·0	22·2	22·0	22·5	21·9	20·9	20·4	20·8	20·5	19·9	19·4	19·9	19·2	
Norway.................	24·2	23·2	22·3	22·1	21·9	19·6	18·1	17·9	17·3	17·0	16·9	16·0	14·9	14·6	14·4	14·8
Poland..................	32·8	35·3	35·0	34·5	35·2	33·1	31·6	32·3	32·0	32·5	30·2	28·8	26·5	26·5	26·1	26·2
Portugal................	32·6	33·6	34·1	34·1	34·2	34·9	32·3	34·1	32·3	32·0	30·9	28·8	28·9	28·4	28·8	28·8
Roumania...............	38·2	37·2	36·4	36·7	35·0	34·8	34·1	34·7	33·4	34·9	33·2	35·9	32·0	32·4	31·4	30·4
Scotland................	25·2	23·5	22·9	22·9	21·4	21·1	19·9	20·0	19·2	19·6	19·0	18·6	17·6	18·0	17·8	17·9
Sweden.................	21·5	19·6	18·9	18·1	17·6	16·8	16·1	16·1	15·5	15·4	14·8	14·5	13·7	13·7	13·8	14·2
Switzerland.............	20·8	19·7	19·4	18·9	18·5	18·3	17·5	17·4	17·1	17·2	16·7	16·1	16·0	16·2	16·0	15·8
Union of South Africa (White)	28·4	27·6	26·7	26·3	26·5	26·2	26·0	25·8	26·2	26·4	23·4	24·2	23·6	23·4	24·2	24·4
United States (Registration Area)......	24·2	22·3	22·2	22·4	21·5	20·7	20·6	19·8	18·9	18·9	18·0	17·4	16·6	17·1	16·9	16·6
Uruguay................	26·2	26·0	24·2	25·8	25·4	25·4	24·6	25·0	24·2	24·4	23·1	22·5	21·0	22·3	20·3	19·9

[1] Not available.   [2] Rates per 1,000 population.

Organization of Vital Statistics in Canada

Organization of Vital Statistics in Canada.—The purpose of the present monograph is to deal with the decline in the Canadian birth rate over the period 1921-36, taking advantage especially of the Censuses of 1921 and 1931 and, in the Prairie Provinces, the Censuses also of 1926 and 1936 to measure the effect of some of the factors which contributed to this falling birth rate. No attempt is made, however, to go further than the factors which can be measured quantitatively.

At the outset it may be explained that the National System of Vital Statistics in Canada, under which compilations are centrally made in the Dominion Bureau of Statistics from transcripts of birth, death and marriage certificates furnished by the Provincial Registration Offices,

was established in 1920 and detailed statistics were first compiled under this system for the year 1921. This is the reason why the year 1921 has been selected as the first year of the comparisons made in the report, although, in any case, the years 1920 and 1919 might be subject to the disadvantage that their birth rates reflect, to some extent at least, the accumulation of delayed marriages when the War ended. This objection may in some measure even apply to 1921 from the marriages of 1920 but it could hardly have existed in 1922.

The province of Quebec did not enter the National System until the beginning of the year 1926 and, although in Statement IX rates for the total of the nine provinces of Canada were presented, the Quebec figures for the years 1921-25 were obtained from the reports of the Provincial Bureau of Health of that province. In the remaining statements of the monograph we have confined ourselves to the results of the compilations made in the Bureau of Statistics in order that the figures might not be subject to the objection that they were drawn from more than one source and that these sources might not have attained equal completeness.

The question of completeness of registration must, of course, be considered in connection with any comparison of birth rates. The results of investigations into the completeness of birth registration in Canada appeared in Chapter I. For the present it is sufficient to say that the birth registration is complete enough throughout the period and throughout the various provinces to justify comparisons within reasonable limits. The completeness of registration was at least not worse, and probably was better, at the end of the period than at the beginning, so that the decline in the birth rates has not been exaggerated but has even to a slight extent been masked by the changes in completeness of registration.

SUMMARY OF TREND IN BIRTHS, DEATHS AND NATURAL INCREASE IN CANADA

Live Births.—Statement X presents, by provinces, the number of live births over the period 1921-36. The full comparison in time is made only for the eight provinces for which figures for the whole period were compiled in the Bureau of Statistics, and for the total area comprised in these provinces which is termed "the Registration Area of 1921" and will hereafter be referred to as "the Registration Area." Figures for the province of Quebec and for the total of the nine provinces of Canada are given from 1926.

X.—NUMBER OF LIVE BIRTHS, CANADA, PROVINCES AND THE REGISTRATION AREA, 1921-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Registration Area[2]
1921	[1]	2,156	13,021	11,465	[1]	74,152	18,478	22,492	16,561	10,653	165,979
1922	[1]	2,160	12,693	11,564	[1]	71,430	17,679	22,339	16,163	10,166	164,194
1923	[1]	1,977	11,680	10,704	[1]	70,056	16,472	20,947	15,060	10,001	156,897
1924	[1]	1,858	11,801	10,717	[1]	71,510	15,454	21,539	14,597	10,119	157,596
1925	[1]	1,675	11,400	10,046	[1]	70,122	14,867	20,582	14,024	10,342	154,961
1926	232,750	1,752	10,080	10,340	82,165	67,617	14,661	20,716	14,456	10,063	150,585
1927	234,188	1,697	11,134	10,479	83,064	67,671	14,147	21,015	14,897	10,084	151,124
1928	236,757	1,800	10,031	10,047	83,621	68,510	14,504	21,201	15,602	10,355	153,136
1929	235,415	1,670	10,686	10,235	81,380	68,456	14,230	21,446	16,924	10,378	154,035
1930	243,493	1,740	11,346	10,534	83,625	71,263	14,411	22,051	17,640	10,867	159,870
1931	240,473	1,879	11,015	10,801	83,606	69,200	14,376	21,331	17,252	10,404	156,867
1932	233,666	2,027	11,620	10,810	82,216	66,842	14,124	20,814	16,990	10,214	153,450
1933	222,988	1,946	11,164	10,637	76,920	63,646	13,304	20,145	16,122	9,583	145,948
1934	221,302	1,943	11,407	10,164	76,432	62,234	13,310	19,764	16,236	9,813	144,871
1935	221,451	2,010	11,617	10,388	75,267	63,069	13,335	19,569	16,183	10,013	146,184
1936	220,371	1,977	11,808	10,532	75,285	62,451	12,855	19,129	15,786	10,571	145,086

[1] Quebec not in National System.
[2] Eight provinces, exclusive of Quebec.

For the eight provinces exclusive of Quebec the total number of live births in 1921 was 168,979. The general trend up to 1926 was downward, the low being reached in that year with 150,585 births. From this point slight increases were shown year by year up to 1929 and a larger increase in 1930 brought the total to 159,870 births. From 1930 a second decline in the number set in, the low being reached in 1934 with 144,871 births. The year 1935 showed a slight increase but 1936 manifested a recession almost to the level of 1934. It may, therefore, be said that for the three years 1934-36 a condition of stabilization had been reached. Though the returns for 1937 are not quite complete at the time of writing, the indications are for a further slight recession.

Among the individual provinces, there were, as might be expected, greater fluctuations in the annual number of births than for the total of the eight provinces but the trend in every case was downward over the period and in every province from Ontario west a decline was evident during the years following 1930.

The province of Quebec showed 82,165 live births in 1926, the first year for which its statistics were compiled under the National System and, with minor fluctuations taking place, the number for the year 1931 somewhat exceeded this, being 83,606. The year 1932 showed a slight decline but in the following year the number was more than 5,000 less and this loss was not recovered in subsequent years. For 1936 Quebec registered about 7,000 fewer births than in 1926.

Provincial Birth Rates.—As the population of Canada and of each province was increasing during the period under review, with the exceptions of Prince Edward Island and Nova Scotia, between the Censuses of 1921 and 1931, the declines in the rates per thousand population will, with these exceptions, be greater than the decline in the absolute figures for births. This is exemplified in Statement XI.

XI.—CRUDE BIRTH RATES[3], CANADA, PROVINCES AND THE REGISTRATION AREA, 1921-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Registration Area[2]
1921	1	24·3	24·9	30·2	1	26·3	30·3	29·7	28·1	20·3	26·4
1922	1	24·3	24·3	29·7	1	24·0	28·7	29·0	27·3	18·6	25·3
1923	1	22·7	22·5	27·5	1	23·3	26·6	26·9	25·4	18·0	23·9
1924	1	21·6	22·9	27·4	1	23·4	24·7	27·2	24·5	17·7	23·7
1925	1	19·5	22·1	27·9	1	22·5	23·5	25·5	24·8	17·6	23·0
1926	24·7	20·1	21·3	26·1	31·6	21·4	22·9	23·2	25·8	16·6	22·0
1927	24·3	19·5	21·6	26·3	31·3	21·0	21·7	25·0	23·5	16·2	21·7
1928	24·1	20·5	21·2	25·1	30·8	20·9	21·8	24·7	23·8	16·2	21·5
1929	23·5	19·0	20·8	25·3	29·4	20·5	21·0	24·3	24·7	15·7	21·3
1930	23·9	19·0	22·1	23·9	29·6	21·0	20·9	24·4	24·9	16·1	21·7
1931	23·2	21·3	22·6	20·5	29·1	20·2	20·5	23·1	23·6	15·0	20·9
1932	22·5	22·8	22·4	26·2	28·3	19·2	19·9	22·3	23·0	14·5	20·2
1933	20·9	21·9	21·4	23·9	25·9	17·9	18·7	21·6	21·6	13·6	19·0
1934	20·5	21·3	21·7	23·9	25·3	17·1	18·7	21·2	21·8	13·6	18·6
1935	20·3	22·6	22·0	24·2	24·6	17·2	18·5	21·8	21·0	13·6	18·6
1936	20·0	21·5	22·0	24·2	24·3	16·9	18·1	20·5	20·4	14·1	18·3

[1] Quebec not in National System.
[2] Eight provinces, exclusive of Quebec.
[3] Rates per 1,000 population.

For the Registration Area the rate was 26·4 in 1921 and from this level every year showed a decline down to 1929, though sometimes, as between 1927 and 1928 or between 1928 and 1929, the lowering of the rate was very slight. The 1929 rate was 21·3, 5·1 per thousand below the initial rate of 1921. The year 1930 showed an increase to 21·7 but from this point each succeeding year gave a smaller rate until 18·6 was reached in 1934. This rate was again maintained in 1935 but the year 1936 showed a further decline to 18·3, a loss of 8·1 per thousand as compared with 1921.

Considering the individual provinces, Prince Edward Island with the fluctuations which might be expected from so small a province, showed its highest rate, 24·3, in 1921 and its lowest, 19·0, in 1929. The rate for 1936 was 21·5. There is reason to believe, however, that the registration of births in the last few years has been somewhat better in Prince Edward Island than around the period 1929-31 and the recovery indicated in the birth rate is to that extent doubtful.

In Nova Scotia, also, the decline in the rate over the period was small in comparison with that of the total of the eight provinces and the lowest rate, 20·8, was reached in 1929.

The province of New Brunswick, which in 1921 had the comparatively high rate of 30·2, reached its low rate of 23·9 in 1933 and 1934, the succeeding two years showing a slight improvement. The net loss over the period was 6·0.

Ontario, as might be expected of the largest province, closely corresponded in the direction of the movement of its rate with the total of the eight provinces. The net loss between 1921 and 1936 was, however, slightly greater, being 8·4 per thousand.

The birth rate of Manitoba showed a more startling decline than that of any other province during the post-War period. In 1921 the rate was 30·3—higher than that of any other province

in the Registration Area. Declines were shown year by year ranging from 0·6 per thousand to 2·1, until the low of 21·7 was reached in 1927. The next year showed a very slight recovery to 21·8, but at that point the downward trend recommenced and, although a condition of stability was reached in 1933-35 with rates of 18·7 and 18·8, the year 1936 saw a further fall to 18·1. The net loss over the period was thus no less than 12·2 per thousand.

Saskatchewan at the beginning of the period had a rate slightly lower than Manitoba but by 1930 it was 3·5 per thousand higher. From this point, however, the unfavourable conditions which existed in that province during the last few years of the period may be assumed to have produced an influence on the birth rate and by 1936 the net loss over the period was 9·2.

Alberta, which in 1921 had a rate lower than that of Saskatchewan, declined more rapidly in the early years of the period but reached a condition of stability and, to some extent, of recovery from 1927 to 1930. The secondary decline from that year eventually brought the rate to 20·4 in 1936, almost identical with that of Saskatchewan, giving a net loss of 7·7 over the period.

British Columbia had throughout the period the lowest rate of any province. Even in 1921 the rate was only 20·3 per thousand, and had fallen from this point to 15·7 in 1929. In this province, also, the year 1930 showed a slight recovery succeeded by further declines until the rate stabilized around 13·5 and 13·6 in 1933-35 and advanced a little to 14·1 in 1936.

The rate of the province of Quebec was 31·6 in 1926 when it entered the Registration Area. Declines were registered in every successive year with the exception of 1930 which showed a very slight increase over the preceding year; but all of these declines were slight with the exception of that between 1932 and 1933 when the rate fell from 28·3 to 25·9, a loss of 2·4. The final rate of Quebec in 1936 was 24·3 and the net loss was 7·3, greater in absolute magnitude and proportion than that of any other province in the Dominion during this period of ten years.

It is natural to associate the secondary decline, which was in evidence in Canada and most of the provinces from the year 1930, with the economic depression and to suppose that it was largely due to a falling off in the number of marriages. This relationship will be examined later but in the meantime attention may be called to the fact that when the number of marriages and the marriage rate, which reached their low in 1932 and 1933, showed a movement of recovery, this movement failed to reflect itself in any recovery in the birth rate of Canada as a whole.

Synchronization of Death and Birth Trends.—At this juncture it may be well to see the effect which the changing birth rate produced on the rate of natural increase in Canada. The death rates by provinces over the period 1921-36 are shown in Statement XII.

XII.—DEATH RATES,[3] CANADA, PROVINCES AND THE REGISTRATION AREA, 1921-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Registration Area[2]
1921	[1]	13·6	12·3	14·2	[1]	11·8	8·8	7·4	8·4	8·0	10·6
1922	[1]	12·5	12·8	13·3	[1]	11·4	9·3	8·0	8·9	9·1	10·6
1923	[1]	13·2	13·3	12·0	[1]	11·8	8·6	7·9	8·4	9·0	10·7
1924	[1]	11·1	12·8	12·6	[1]	10·8	8·0	7·3	8·1	8·8	10·0
1925	[1]	11·6	11·7	12·6	[1]	10·9	8·3	7·0	7·6	8·4	9·9
1926	11·4	10·3	12·4	12·6	14·3	11·3	8·3	7·4	8·5	9·0	10·3
1927	10·9	10·5	12·4	12·3	13·6	10·8	8·2	7·2	8·0	9·2	9·9
1928	11·1	10·8	12·0	12·4	13·5	11·3	8·1	7·2	8·7	9·2	10·2
1929	11·3	12·8	12·9	12·9	13·4	11·4	8·6	7·6	9·1	9·7	10·6
1930	10·7	10·9	12·1	12·3	12·7	11·0	8·3	7·0	7·8	9·5	10·0
1931	10·1	10·4	11·6	11·4	12·0	10·4	7·6	6·6	7·2	8·8	9·4
1932	9·9	11·8	11·9	11·0	11·4	10·5	7·5	6·5	7·5	8·7	9·4
1933	9·6	11·6	11·6	11·7	10·7	9·9	7·7	6·5	7·1	8·7	9·1
1934	9·4	11·6	11·5	11·0	10·6	9·7	7·3	6·4	7·1	8·8	8·9
1935	9·7	11·0	11·7	11·1	10·7	9·8	8·1	6·6	7·5	9·3	9·3
1936	9·7	11·1	11·0	11·0	10·3	10·2	8·7	6·8	8·0	9·6	9·5

[1] Quebec not in National System.
[2] Eight provinces, exclusive of Quebec.
[3] Rates per 1,000 population.

Considering the Registration Area for which the rates derived from one source are available throughout the whole period, it will be observed that the death rates of 1921-23 stood at 10·6 and 10·7. From this level there was a decline continuing to the lowest rate of the period in

1934, 8·9 per thousand, each year between 1923 and 1934 showing a decline from the preceding with the exception of 1926, 1928 and 1929. All three exceptions may be assigned to influenza epidemics of unusual severity, the epidemic of 1928-29, culminating in the early months of the latter year, being particularly noteworthy in this respect. The low and declining death rate through the worst period of the economic depression, as in the United States and other countries, was a phenomenon which attracted much attention. The extraordinarily low death rate of 1934, however, could hardly have been much expected to be maintained and 1935 and 1936 each in turn showed some advance.

Death rates which, on the whole, declined throughout the period were the rule in the individual provinces with the exception of Manitoba and British Columbia. In the former case no definite trend is seen and in the latter case the trend appears to be slightly upward, though with rather violent fluctuations. All provinces, however, from Ontario west showed lower rates in 1933 and 1934 than in 1935 and 1936.

The province of Quebec had a death rate of 14·3 per thousand in its first year under the National System of Vital Statistics. This rate was allowed about 2 per thousand above the next provincial rate in order of size, viz., that of New Brunswick which was 12·6 per thousand in the same year. During the period 1926-36 Quebec failed in only one year, 1935, to register a lower rate than in the preceding year and the 1936 death rate, 10·3 per thousand, was actually lower than that of any of the Maritime Provinces and only slightly above that of Ontario. The reduction of infant and child mortality in the province of Quebec has undoubtedly had a very important effect on the general death rate.

Trends in Natural Increase.—The rates of natural increase, which, of course, result from the difference between birth rates and death rates, are shown in Statement XIII.

XIII.—RATES[3] OF NATURAL INCREASE, CANADA, PROVINCES AND THE REGISTRATION AREA, 1921-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Registration Area[2]
1921	[1]	10·7	12·6	16·0	[1]	13·5	21·5	22·3	19·7	12·3	15·8
1922	[1]	11·8	11·5	16·4	[1]	12·6	19·4	21·0	18·4	9·7	14·7
1923	[1]	9·5	9·3	14·6	[1]	11·5	18·0	19·0	17·0	9·0	13·2
1924	[1]	10·5	10·1	14·8	[1]	12·6	16·7	19·9	16·4	8·9	13·7
1925	[1]	7·9	10·4	15·3	[1]	11·6	15·2	18·5	17·0	9·2	13·1
1926	13·3	9·8	8·9	13·5	17·3	10·1	14·6	17·8	15·3	7·6	11·7
1927	13·4	9·0	9·2	14·0	17·7	10·2	13·5	17·8	15·5	7·0	11·8
1928	13·0	9·7	9·2	12·7	17·3	9·6	13·7	17·5	15·1	7·0	11·3
1929	12·2	6·2	7·9	12·4	16·0	9·1	12·4	16·7	15·6	6·0	10·8
1930	13·2	9·0	10·0	13·6	16·9	10·0	12·6	17·4	17·1	6·6	11·7
1931	13·1	10·9	11·0	15·1	17·1	9·8	12·6	16·5	16·4	6·2	11·5
1932	12·6	11·0	10·5	15·2	16·9	8·7	12·4	15·8	15·5	5·6	10·8
1933	11·3	10·3	9·8	12·2	15·2	8·0	11·0	15·1	14·5	4·8	9·9
1934	11·1	10·2	10·2	12·9	14·7	7·4	11·4	14·8	14·4	4·7	9·7
1935	10·6	11·6	10·3	13·1	13·9	7·3	10·7	14·4	13·7	4·3	9·3
1936	10·3	10·1	11·0	13·2	14·0	6·7	9·4	13·7	12·4	4·5	8·8

[1] Quebec not in National System.
[2] Eight provinces, exclusive of Quebec.
[3] Rates per 1,000 population.

Considering the Registration Area, it is seen that, in spite of the generally declining death rates, the rate of natural increase, which was 15·8 in 1921 and 14·7 in 1922, showed in nearly every year a decline from the preceding year, the only exceptions being "influenza" years, 1923, 1926 and 1929. As a result of this almost uninterrupted decline the rate had fallen to 8·8 per thousand in 1936.

With the exception of the Maritime Provinces, which showed, in general, a downward and then an upward movement throughout the period, all provinces of the Registration Area underwent heavy declines in the rate of natural increase. The outstanding instance is that of Manitoba, which from a high of 21·5 in 1921 and 19·4 in 1922 fell very·rapidly to 13·5 in 1927 and from this point moved slowly and with more fluctuation until it reached a low of 9·4 in 1936. As against this province, which showed the largest decline in the rate, it may be noted that British Columbia showed the largest percentage decline, though the considerable difference between the 1921 rate of 12·3 and the 1922 rate of 9·7 shows that the fall would be much less if the rate were smoothed for trend.

The province of Quebec showed a rather substantial decline in the rate of natural increase which was more than 17 per thousand in the years 1926-28 and again in 1931 but which reached a low of 13·9 in 1935 with a very slight recovery to 14·0 in the next year. Among the provinces of Canada, in some years Saskatchewan's natural increase was greater than Quebec's and in the remaining years was always second to it; the Saskatchewan natural increase, however, resulted both from birth and death rates considerably lower than those of Quebec.

SPECIFIC FERTILITY RATES

Specific Fertility Rates of All Women 15-49 Years of Age for Census and Adjacent Years.—The heavy decline in the rate of natural increase of the eight provinces forming the Registration Area during the period 1921-36 renders it important to examine in detail the factors which produced the decline in the birth rate from which this lowered rate of natural increase sprang, so far as these factors can be measured quantitatively.

Statement XIV presents the specific fertility rates of women of all conjugal conditions in the Registration Area for the census years 1921 and 1931 and for the years adjacent to these with the exception of 1920 for which data are lacking, as the first detailed tabulations of vital statistics, centrally compiled, were for the year 1921. These rates give the number of children born to mothers in a specified age group per 1,000 women.

XIV.—SPECIFIC FERTILITY RATES[1] OF WOMEN 15-49 YEARS OF AGE (ALL CONJUGAL CONDITIONS), BY AGE GROUP, REGISTRATION AREA, 1921-1922 AND 1930-1932

Year	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Registration Area[2]—							
1921	37·9	165·1	186·7	155·3	109·9	46·6	6·5
1922	37·1	154·9	179·2	149·7	106·4	46·7	5·4
1930	33·6	140·7	163·1	131·8	89·4	37·6	4·0
1931	33·6	137·1	158·9	125·7	85·0	34·6	4·0
1932	32·4	132·0	154·9	120·1	81·9	34·6	4·1

[1] Rates per 1,000 women of age specified.
[2] Eight provinces, exclusive of Quebec.

It may be noted that the rates for 1922 have been computed on the assumption that the officially estimated population of that year was, as regards sex and age composition, exactly proportionate to the Census population of 1921. For the years 1930 and 1932 a similar assumption was made in relation to the Census of 1931.

Such an assumption evidently involves some degree of error and is not in accordance with the observed fact that the proportion of women of child-bearing ages to the total population showed a slight change between the two censuses or that the relative proportions of five-year age groups among these women also showed some change. It did not, however, appear necessary to make corrections for these facts in the case of years immediately adjacent to the census year.

It will be observed from Statement XIV that in each of the five-year age groups, with the exception of the group 40-44 years, the rate for 1922 is somewhat lower than that for 1921; that in every case the rates of 1930, 1931 and 1932 are definitely lower than those of 1921 and 1922, and that among the years 1930, 1931 and 1932 the rates also showed some decline in almost every case. The exceptions are in the 15-19 group between 1930 and 1931, in the 40-44 group between 1931 and 1932 and in the 45-49 group, also between 1930 and 1931 and, also, between 1931 and 1932. The only advance is in the last case when 1932 shows a rate of 4·1 as against 4·0 for 1931.

Thus, it appears that the ten-year period was one of decline in the fertility of women at the different age groups, most of those age groups showing considerable decline. Further, this secular trend was reflected over the single year periods, 1921-22 and 1930-31-32.

Specific Fertility Rates of All Women for the Average of 1921-1922 and of 1931-1932.
—Statement XV contains specific fertility rates for women of all conjugal conditions averaged for the two years 1921-22 and also for the two years, 1931-32. In computing these rates the assumption has again been made that the estimated population of 1922 and of 1932 were divided, by sex and age, in the same proportions as for the Census years 1921 and 1931.

XV.—SPECIFIC FERTILITY RATES[1] OF WOMEN 15-49 YEARS OF AGE (ALL CONJUGAL CONDITIONS), BY AGE GROUP, REGISTRATION AREA AND PROVINCES, FOR THE AVERAGE OF 1921-1922 AND OF 1931-1932

Province and Year	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Registration Area[2]—							
Average 1921-22	37·5	160·1	183·0	152·0	108·2	46·7	6·0
Average 1931-32	33·0	134·6	156·9	122·9	83·5	34·6	4·1
Prince Edward Island—							
Average 1921-22	22·4	136·3	195·1	186·7	140·5	68·7	7·8
Average 1931-32	30·4	146·2	186·0	179·7	127·8	53·2	4·7
Nova Scotia—							
Average 1921-22	34·8	151·3	183·7	162·3	119·1	53·9	5·7
Average 1931-32	45·5	156·1	172·6	141·2	105·5	47·9	5·7
New Brunswick—							
Average 1921-22	43·8	179·9	225·3	195·9	148·5	66·6	8·5
Average 1931-32	42·8	163·0	204·6	174·5	133·5	66·4	8·0
Ontario—							
Average 1921-22	34·7	144·9	169·3	140·3	96·1	38·7	4·4
Average 1931-32	34·3	124·9	142·1	110·8	72·5	28·0	3·0
Manitoba—							
Average 1921-22	41·0	180·0	205·0	167·6	127·4	57·4	9·2
Average 1931-32	25·1	121·2	154·2	127·1	85·4	36·5	5·0
Saskatchewan—							
Average 1921-22	46·3	205·2	212·8	179·6	135·2	65·5	10·6
Average 1931-32	29·4	155·0	188·7	147·0	108·3	49·1	6·6
Alberta—							
1922[3]	47·2	187·2	194·3	161·0	115·6	55·8	9·6
1932	33·7	155·1	189·2	140·7	93·6	41·2	5·6
British Columbia—							
Average 1921-22	25·5	132·9	149·1	119·1	77·1	30·5	2·9
Average 1931-32	25·5	108·9	125·3	92·2	54·6	20·3	2·2

[1] Figures for Alberta, 1921, are not available by age group; to complete the ten-year period, 1932 figures are used instead of the average for 1931-32. For the Registration Area figures of 1921, the births for Alberta were distributed by age group of mother proportionately to their distribution in 1922.
[2] Rates per 1,000 women of age specified.
[3] Eight provinces, exclusive of Quebec.

It will be noted that two factors which would not normally affect the trend may to some extent reflect in the rates for 1921-22 as against those of 1931-32. The absence of a large number

of single men of marriageable age during the Great War and particularly during its latter part caused a very noticeable decline in the number of marriages, culminating in the year 1918 and the early part of 1919. There followed, of course, in the latter part of 1919, an accumulation of delayed marriages which to some extent proceeded into the latter part of 1920. It will be shown later that, so far as the conjugal condition of the women of child-bearing ages was concerned, this accumulation of delayed marriages fully made up for the marriages which were prevented by war conditions so that at the Census of 1921 the conjugal condition of the women of Canada, *i.e.*, of the eight provinces composing the Registration Area, presented a more favourable condition for high fertility than was true in 1911 or 1931 and probably more favourable than in either 1901 or 1891. The question will naturally arise, however, whether the fertility rates of 1921 were still affected by this accumulation of marriages after the end of the War. Probably they were, but by averaging 1921 with the year 1922 it is thought that this effect is reduced to comparatively small proportions.

Neither can it be ignored that the years 1931 and 1932—coming during the recent economic depression and after the decline in marriages which set in in 1930 had already had time to produce some effect on the births—will, in comparison with 1921-22, represent not only the effect of a general secular trend but also the effect of fluctuation downward due to this depression.

Keeping these facts in mind, we may proceed to compare specific fertility rates for the Registration Area and the eight provinces which it comprises.

In the total of the eight provinces every age group shows a definite decline, even that of the 15-19 group being in the neighbourhood of 11 p.c. Attention is attracted to this group because its behaviour is sometimes contrary to that of the other groups when a general decline in fertility takes place. In the first place, the births to unmarried mothers play a larger part in the fertility of this group than in any other and, secondly,—what is another aspect of the same idea—even when marriage takes place it is more apt than at a later age to be *ad causam* and, consequently, cannot be regarded as reflecting a national or sectional tendency. Attention is called to these facts in order to explain why in some of the provinces the movement in this group is in an opposite direction to that of all other or most other groups.

Coming to the individual provinces, the only exceptions to declines throughout were in Prince Edward Island in the age groups 15-19 years and 20-24 years and in Nova Scotia in the same groups and also in the 45-49 group which gave the same rate in both periods. The decline in New Brunswick and Ontario in the 15-19 group was too slight to have significance. Outside of these cases the declines in specific fertility rates were, in general, rather considerable.

In the Registration Area as a whole the 45-49 group showed the greatest percentage decline between 1921-22 and 1931-32, the percentage decline being 32. In the 40-44 group we have a decline of 26 p.c.; in the 35-39 group, 23 p.c.; in the 30-34 group, 19·5 p.c.; in the 25-29 group, 14 p.c.; in the 20-24 group, 16 p.c.; and in the 15-19 group, 12 p.c. Thus the extent of the decline lessens with comparative regularity from 32 p.c. in the oldest age group to 12 p.c. in the youngest, with the exception that while the 20-24 group showed a decline of 16 p.c. the 25-29 group declined by only 14 p.c.

This trend from age group to age group may possibly be another aspect of a phenomenon to be mentioned later in connection with Order of Births and discussed also in a monograph, *The Canadian Family, viz.,* a tendency to have smaller families rather than no families. Obviously, if this is the real tendency, the age group fertility rates would behave in this way.

In the individual provinces also and particularly in the groups over 25 years, the general tendency was towards heavier percentage declines in the older groups. There were, however, certain irregularities in regard to this rule. The decline in the rate for the youngest age group, 15-19, which took place in only six of the eight provinces was rather insignificant in Ontario, slight in New Brunswick and moderate in British Columbia. In all of these provinces the decline in the rate of the age group 20-24 years was much more marked. But in the three Prairie Provinces, while both the 15-19 and 20-24 groups showed very substantial declines, in each instance they were greater in the younger group.

It has already been mentioned that comparison of the years 1921-22 with the years 1931-32 has certain drawbacks as a measurement of the secular trend during the decade of which these two-year periods formed the beginning and the end. Crude rates have already been presented over the whole period 1921-36 and have been given a brief examination but these rates suffer from the fact that they are affected not only by the trend in fertility, but also by changes in the sex and age composition of the population. Such changes are occurring to a noticeable degree in Canada and a number of the provinces.

BIRTH RATES STANDARDIZED FOR AGE

In order to give a summary view of the changing tendencies in fertility over the period 1921-36 which is largely free from the influence of changes in sex and age composition and at the same time has the advantage over the fertility rates of Statement XV that it is not confined to particular pairs of years each of which may have been subject to influences of a temporary nature, standardized birth rates have been computed and are presented in Statement XVI. For the Registration Area and the eight provinces which compose it, these rates are given for the whole period 1921-36; for Quebec and the total of the nine provinces they are given for the period 1926-36. *The standard population on which these standardized rates are based is the population of all Canada as at the Census of 1931.*

Method of Standardization.—To illustrate briefly the method of their computation, let us consider first the Registration Area. For the years 1921, 1922, 1930, 1931 and 1932, the rates were computed direct from the specific fertility rates of Statement XIV, *i.e.*, the specific rates were applied to the corresponding female age groups of the population of Canada in 1931, the resultant numbers of computed births in the various age groups were added and the total births thus computed at all ages between 15 and 50 years were divided by the total population of Canada to obtain a rate. Standardized rates for the years intervening between 1922 and 1930 were computed on the assumption that the proportion of the standardized to crude rate was moving in an arithmetical progression between the average of 1921-22 and the average of 1930-31, a distance of nine years. Rates for the years following 1932 were computed on the assumption that this proportion of standardized to crude rate continued to move in the same arithmetical progression. This assumption cannot, of course, be regarded as necessarily true but it seems as good as can be made in the absence of more frequent enumerations of the population by age and sex and tends to indicate in a rough manner at least the extent to which the changes in the crude rate are influenced by the change in sex and age composition of the population.

Specific fertility rates similar to those of Statement VI, though not published in this monograph, are available for the individual provinces of Prince Edward Island, Nova Scotia, New Brunswick, Ontario and British Columbia and the computations for these provinces were made in the same manner as for the Registration Area. For the Prairie Provinces the Censuses of 1926 and 1936 were also used, not merely for these years but for the direct computation of rates in the adjacent years.

The specific fertility rates of 1921 and 1922 were not available for Quebec nor for the total of the nine provinces. To obtain standardized rates for these units commencing with 1926, specific fertility rates of 1930-32 were applied to the corresponding female populations of the Census of 1921 and the Census of 1931 and in each case a rate was thus obtained on the total population. The proportion of the standardized birth rate to the crude for the year 1931 was then obtained by direct computation. From this data it was possible to compute the proportion of standardized rate to crude in the year 1921 on the assumption that this proportion would be wholly dependent on the sex and age composition of the population.

It will be observed from the above that the detailed computations of the standardized rates show some variation as between the different units but that the same principle is followed in every case. As already stated, it can only be claimed that the assumption we are making is as good as any that can be made according to the information available. For the very reason of the degree of uncertainty about the assumption made, it was not considered worth while to smooth out the minor roughnesses in the methods which have been indicated above.

XVI.—STANDARDIZED BIRTH RATES,⁴ CANADA, PROVINCES AND THE REGISTRATION AREA, 1921-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Registration Area⁴
1921	¹	26·8	25·0	31·6	¹	23·6	29·5	31·6 ³		20·5	25·9
1922	¹	26·8	25·5	31·2	¹	22·4	27·9	30·9	28·3	18·9	24·8
1923	¹	25·4	22·8	29·0	¹	21·8	26·2	29·1	26·7	18·4	23·6
1924	¹	24·3	24·3	29·0	¹	22·0	24·5	29·8	26·0	18·2	23·5
1925	¹	22·1	23·6	29·6	¹	21·3	23·5	28·4	26·9	18·2	22·9
1926	24·5	23·0	22·9	27·9	31·2	20·3	22·9	28·1	25·8	17·3	22·0
1927	24·2	22·4	23·3	28·3	30·8	20·0	21·8	27·9	25·6	16·9	21·7
1928	24·0	23·8	23·0	27·0	30·2	20·0	21·8	27·3	25·6	17·1	21·7
1929	23·4	22·1	22·6	27·4	28·7	19·7	21·0	26·8	26·3	16·7	21·5
1930	23·8	23·5	24·3	28·3	28·9	20·3	20·8	26·7	26·1	17·2	22·0
1931	23·2	23·2	24·9	28·8	28·9	19·5	20·4	25·3	24·8	16·1	21·3
1932	22·5	27·2	24·6	28·5	27·4	18·6	19·8	24·4	24·1	15·8	20·6
1933	20·9	26·2	23·7	26·2	25·1	17·4	18·2	23·2	22·3	14·6	19·4
1934	20·6	26·4	24·2	26·3	24·4	16·7	17·9	22·4	22·0	14·7	19·1
1935	20·4	27·4	24·7	26·8	23·6	16·8	17·6	21·7	21·3	14·9	19·1
1936	20·2	26·3	24·8	26·8	23·3	16·6	16·9	21·3	20·6	15·5	18·9

¹ Quebec not in National System.   ² Not available.   ³ Eight provinces, exclusive of Quebec.   ⁴ Per 1,000.

Comparison of Standardized with Crude Rates.—For the Registration Area the standardization of rates reduced the difference between the first year, 1921, and the last year, 1936, from 8·1 per thousand to 7·0 per thousand, not a very large difference but indicating that the composition of the population as at the Census of 1931 was less favourable to a high birth rate than that of the census taken ten years earlier. This was true in every one of the eight provinces for which we were dependent on these two censuses alone. In Prince Edward Island the difference between 1921 and 1936 in the crude rates was 2·8; in the standardized, 0·5. In Nova Scotia crude rates showed a difference of 2·9; standardized rates, 1·2; in New Brunswick the difference was 6·0 in the crude rate and 4·8 in the standardized. Ontario showed a decline of 8·4 in the crude rate and of 7·0 in the standardized. British Columbia, 6·2 in the crude and 5·0 in the standardized.

For the Prairie Provinces, as already indicated, we have the advantage of four censuses, pertaining to the years 1921, 1926, 1931 and 1936. The comparison of the differences between the crude rates of census years with the differences between the standardized rates of the same years brings out some rather peculiar facts. The Prairie Provinces enjoyed a comparatively large immigration for some years, the numbers increasing gradually to 1929 and declining sharply thereafter. This is illustrated in Statement XVII.

XVII.—TOTAL IMMIGRANT ARRIVALS DESTINED TO PRAIRIE PROVINCES, 1921 AND 1923-1937

Destination	Fiscal Year Ended March 31															
	1921	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Manitoba	12,649	6,037	21,451	11,772	10,079	36,739	43,596	57,651	39,132	17,524	1,022	707	553	414	682	1,007
Saskatchewan	13,392	8,186	13,200	14,162	13,816	20,085	15,331	14,789	11,068	5,057	1,177	955	690	493	414	525
Alberta	17,781	8,798	10,430	10,952	12,540	16,367	15,472	16,243	14,970	6,441	2,041	1,655	1,254	1,012	768	923

It would naturally be expected that, as an immigrant population is, to a large extent, in the early adult stage, the falling off of immigration in its proportion to the total population and the ageing of the earlier immigrants would produce a population less favourable to a heavy birth rate. But an examination of the figures does not indicate a development of the age composition as constantly growing more unfavourable to a heavy birth rate. The comparison of 1921 with 1926, it is true, shows what might be expected. In Manitoba the crude rate declined by 7·4 per thousand, the standardized by only 6·6; in Saskatchewan the crude by 4·5, the standardized by 3·5; in Alberta the crude by 3·5*, the standardized by 2·5. In each case the smaller decline of the standardized rate indicates that part of the drop in the crude rate was due to an age composition which was less favourable in the later year. But, if we compare 1926 with 1931 we find in Manitoba a fall of 2·4 in the crude and 2·5 in the standardized; in Saskatchewan a fall of 2·1 in the crude and 2·8 in the standardized; in Alberta a fall of 0·2 in the crude and 1·0 in the standar-

* For Alberta the comparison is between 1922 and 1926 (see footnote to Statement XV).

dized. Again, as between 1931 and 1936 Manitoba shows a fall of 2·4 in the crude and 3·5 in
the standardized; Saskatchewan a fall of 2·6 in the crude and 4·0 in the standardized; Alberta
a fall of 3·2 in the crude and 4·2 in the standardized. Thus, it is evidenced that while between

CRUDE AND STANDARDIZED BIRTH RATES
CANADA AND PROVINCES
1921 —1936

RATES PER 1000
POPULATION

STANDARDIZED ○————○ CRUDE ----------
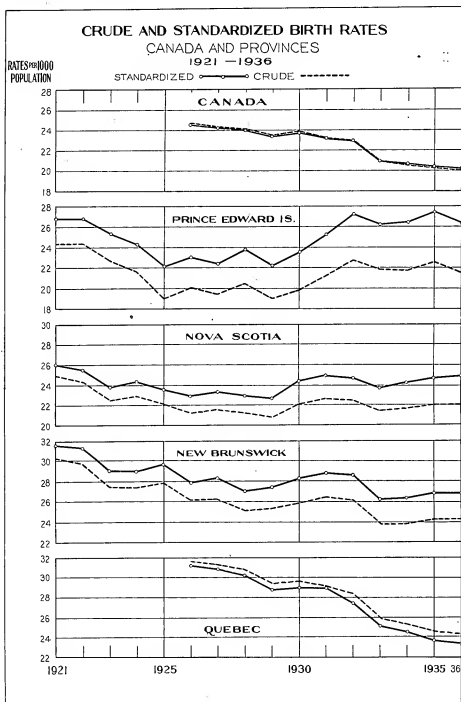
Chart 2

1921 and 1926 the population of each of the Prairie Provinces was becoming less favourably constituted for a high birth rate, a development in the opposite direction took place between 1926 and 1931 and between 1931 and 1936.

(Continued)

CRUDE AND STANDARDIZED BIRTH RATES
CANADA AND PROVINCES
1921 — 1936

RATES PER 1000 POPULATION

STANDARDIZED ○——○ CRUDE ------
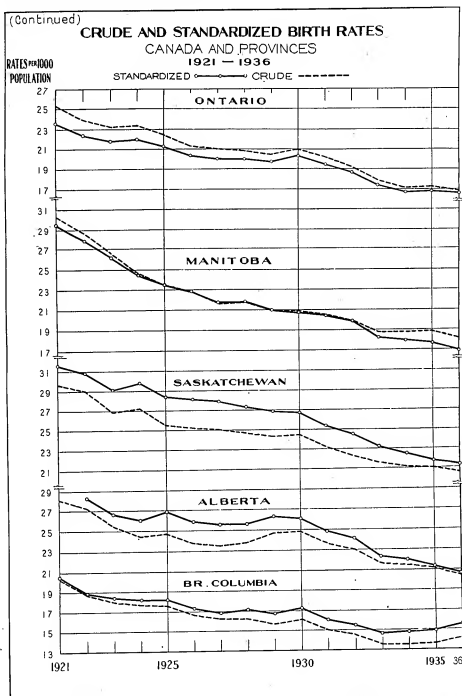
Chart 2—Con.

TRENDS IN FERTILITY AS AFFECTED BY CONJUGAL CONDITION

Specific Fertility Rates of Married Women for Census and Adjacent Years.—So far our analysis has considered only the age composition of the female population and the specific fertility rates and standardized birth rates based on this distribution. It is evident, however, that the conjugal condition of the female population is an important factor in the birth rate and it is necessary to consider to what extent the decline has been due to changes in this respect and to what extent fertility within marriage has lessened. Statement XVIII gives the specific fertility rates of married women in the Registration Area for the census years and years adjacent to the censuses. For 1922, 1930 and 1932 these rates have been computed on the assumption that not only the age composition of females but the composition by conjugal condition in each age group was similar to that of the adjacent census years.

XVIII.—SPECIFIC FERTILITY RATES[1] OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, REGISTRATION AREA, 1921-1922 AND 1930-1932

Year	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Registration Area[2]—							
1921	461·0	363·0	260·7	190·4	130·9	55·9	8·0
1922	446·2	340·5	250·2	185·5	126·6	56·1	6·7
1930	456·7	339·8	231·4	160·4	105·1	44·4	4·8
1931	477·4	330·3	225·0	153·0	100·0	40·8	4·8
1932	463·2	316·8	218·8	146·0	96·4	40·7	5·0

[1] Rates per 1,000 married women of age specified.
[2] Eight provinces, exclusive of Quebec.

It will be noted in the first place that between 1921 and 1922 the fertility of each group under 40 years of age showed a measurable decline varying from 3·3 p.c. at ages 35-39 to 6·2 p.c. at ages 20-24. The group 40-44 years showed a very slight increase and the group 45-49 years is the heaviest decline of all, 16 p.c. Of course, the number of births in the age group 45-49 years is comparatively small, being only 843 in 1921 and 789 in 1922.

The decline in fertility in all the younger groups between 1921 and 1922 is probably in part due to the secular trend of which the figures a decade later give evidence but it is probably also due in part to a somewhat augmented fertility in 1921 owing to the accumulation of marriages in the immediate post-War period.

Comparing 1930 with 1922, we have, in every age group over 25 years, a marked decline ranging from 7·5 p.c. at 25-29 years to 28 p.c. in the oldest group, 45-49 years. The age group 20-24 years showed practically no decline in fertility and in the group 15-19 years there was an increase of 9 p.c.

A comparison of the fertility rates of married women in the three years 1930, 1931 and 1932 is of particular interest. The lowering of the birth rate from 21·7 in 1930 to 20·2 in 1932, a movement not so notable by reason of its extent, as because it marked a departure from the stability of the period 1927-30, may with some reason be attributed largely to the economic depression. The question naturally arises whether the effect of the depression was manifested solely in the reduction of marriages or whether it acted also through a lessening of the fertility within marriage. The figures of Statement XVIII show that in nearly every instance the specific fertility rates of married women were less in 1931 than in 1930 and less in 1932 than in 1931. The sole exception comes in the oldest age group, 45-49 years, the fertility of which in 1930 had shown the greatest decline from 1921 and 1922.

Specific Fertility Rates of Married Women for the Average of 1921-1922 and of 1931-1932.—Keeping in mind what has been shown in Statement XVIII regarding the specific fertility rates for the individual years 1921, 1922, 1930, 1931 and 1932, we may now consider the figures of Statement XIX which presents specific fertility rates for the Registration Area and for each province contained in it averaged for the years 1921-22 and 1931-32.

XIX.—SPECIFIC FERTILITY RATES[1] OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, REGISTRATION AREA AND PROVINCES, FOR THE AVERAGE OF 1921-1922 AND OF 1931-1932

Province and Year	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Registration Area[1]—							
Average 1921-22	453·8	351·9	255·5	187·0	128·8	56·0	7·4
Average 1931-32	470·3	323·5	221·9	149·5	98·2	40·7	4·9
Prince Edward Island—							
Average 1921-22	487·5	423·2	317·6	252·6	152·2	87·5	9·7
Average 1931-32	495·1	399·4	290·6	231·5	154·3	66·6	5·9
Nova Scotia—							
Average 1921-22	494·3	373·0	272·9	206·1	144·9	66·2	7·2
Average 1931-32	568·0	377·1	254·0	177·2	126·9[2]	57·5	7·1
New Brunswick—							
Average 1921-22	495·4	407·5	324·2	249·1	180·6	81·1	10·6
Average 1931-32	543·0	402·4	299·6	219·3	158·9	70·7	9·8
Ontario—							
Average 1921-22	493·1	353·5	251·3	180·3	119·6	48·3	5·6
Average 1931-32	493·4	314·5	209·2	139·0	88·2	34·0	3·7
Manitoba—							
Average 1921-22	449·2	372·7	275·4	199·2	147·3	66·4	10·6
Average 1931-32	419·9	328·1	223·4	153·9	96·7	41·9	5·9
Saskatchewan—							
Average 1921-22	402·3	348·1	256·8	198·4	146·8	71·9	11·9
Average 1931-32	422·2	328·7	239·7	164·1	117·2	53·4	7·3
Alberta[3]—							
1922	402·8	320·3	236·4	180·7	126·6	62·2	11·0
1932	412·3	310·0	236·2	157·7	102·5	45·2	6·3
British Columbia[3]—							
Average 1921-22	339·6	283·0	201·9	141·3	89·4	35·5	3·5
Average 1931-32	393·7[2]	265·7	175·0	110·1	63·5	23·7	2·6

[1] See footnote to Statement XV, page 42.
[2] Rates per 1,000 married women of age specified.
[3] Eight provinces, exclusive of Quebec.

In the youngest age group, 15-19 years, every province except Manitoba showed a higher rate in 1931-32, though the difference in Ontario was insignificant and in Prince Edward Island and Alberta very slight. In all other age groups, with the exception of ages 20-24 in Nova Scotia, declines were recorded in the later year, varying from a very slight and rather insignificant percentage loss in Alberta in the 25-29 group to a falling off of 44 p.c. in Manitoba in the oldest age group, 45-49 years.

For the Registration Area, the decline increased with increasing age, from 8 p.c. at ages 20-24 to 34 p.c. at ages 45-49. This was also the general tendency throughout the individual provinces, though with some exceptions.

RATES PER 1,000

SPECIFIC FERTILITY RATES OF MARRIED WOMEN 15-49 YEARS OF AGE, REGISTRATION AREA AS OF 1921, FOR THE AVERAGE OF 1921-22 AND 1931-32

AVERAGE 1921-22
1931-32

15-19 20-24 25-29 30-34 35-39 40-44 45-49
AGE GROUPS
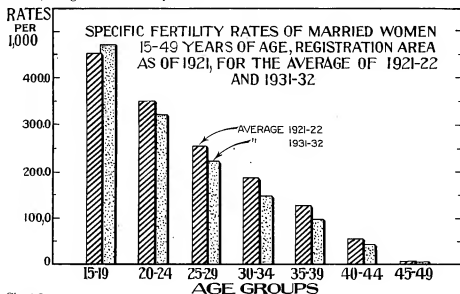
Chart 3

The effect of the different rates of decline in the various age groups for the total of the eight provinces may be seen in an altered relationship between the relative fertility of these groups. Taking the fertility in the age group 20-24 years as 100, the relative fertility of the other groups in 1921-22 and in 1931-32 is shown in the following comparison:—

XX.—SPECIFIC FERTILITY RATES[1] OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, EXPRESSED AS PERCENTAGES OF THE RATE OF THE 20-24 YEAR GROUP, REGISTRATION AREA AND PROVINCES, FOR THE AVERAGE OF 1921-1922 AND OF 1931-1932

Province and Year	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Registration Area[3]—							
Average 1921-22	129·0	100·0	72·6	53·1	36·6	15·9	2·1
Average 1931-32	145·4	100·0	68·6	46·2	30·4	12·6	1·5
Prince Edward Island—							
Average 1921-22	115·2	100·0	75·0	59·7	43·1	20·7	2·3
Average 1931-32	124·0	100·0	72·8	58·0	38·6	16·7	1·5
Nova Scotia—							
Average 1921-22	132·5	100·0	73·2	55·3	38·8	17·7	1·9
Average 1931-32	150·8	100·0	67·4	47·0	33·7	15·2	1·9
New Brunswick—							
Average 1921-22	121·6	100·0	79·6	61·1	44·3	19·9	2·6
Average 1931-32	134·9	100·0	74·5	54·5	39·5	19·8	2·4
Ontario—							
Average 1921-22	139·5	100·0	71·1	51·0	33·8	13·7	1·6
Average 1931-32	156·9	100·0	66·5	44·2	28·0	10·8	1·2
Manitoba—							
Average 1921-22	120·3	100·0	73·9	53·4	39·5	17·8	2·8
Average 1931-32	128·0	100·0	68·1	46·9	30·1	12·8	1·8
Saskatchewan—							
Average 1921-22	115·6	100·0	73·8	57·0	42·2	20·7	3·4
Average 1931-32	128·4	100·0	72·9	49·9	35·7	16·2	2·2
Alberta—							
1922[2]	125·8	100·0	73·8	56·4	39·3	19·4	3·4
1932	133·0	100·0	76·2	50·9	33·1	14·6	2·0
British Columbia—							
Average 1921-22	120·0	100·0	71·3	49·9	31·6	12·5	1·2
Average 1931-32	148·2	100·0	65·9	41·4	23·9	8·9	1·0

[1] See footnote to Statement XV, page 42.
[2] Rates per 1,000 married women of age specified.
[3] Eight provinces, exclusive of Quebec.

The age group 20-24 years was chosen as the base for this index of relative fertility for the reason that, as already stated, the fertility within marriage of women 15-19 years of age has a somewhat doubtful interpretation. In general, it tends to be lower when marriage at these ages is of comparatively normal occurrence.

It may, therefore, briefly be stated that the differential decline in the fertility of married women at the different ages resulted in a greater superiority of the fertility in the younger age groups in 1931-32 than in 1921-22 (see Chart 4 below). This recalls an observation made on page 43 in regard to an apparent tendency to have small families rather than no families.

AVERAGE OF 1931-32 SPECIFIC FERTILITY RATES
OF MARRIED WOMEN 15—49 YEARS OF AGE
GIVEN AS A PERCENTAGE OF THE CORRESPONDING RATES
FOR THE AVERAGE OF 1921-22
PER CENT
REGISTRATION AREA
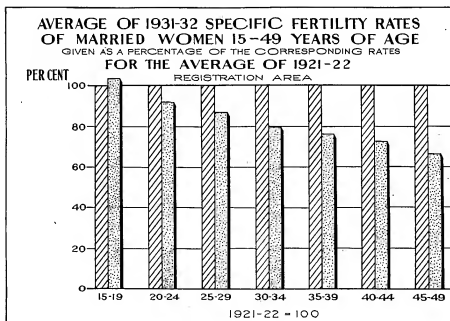
Chart 4

Fertility of Unmarried Women.—The fertility of unmarried women has comparatively small effect on the birth rate in Canada. The ratio of illegitimate births to all live births in the eight provinces composing the Registration Area was 1·97 p.c. in 1921, 2·70 p.c. in 1926, 3·77 p.c. in 1931 and 4·25 p.c. in 1936. This ascending proportion is also noticeable in the province of Quebec over the period commencing with 1926 and in the total of the nine provinces for the same period.

XXI.—PERCENTAGE ILLEGITIMATE BIRTHS FORM OF TOTAL LIVE BIRTHS, CANADA, PROVINCES AND THE REGISTRATION AREA, 1921-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Registration Area²
1921	¹	2·3	3·0	1·7	¹	2·1	2·3	1·1	1·8	1·2	1·97
1922	¹	2·6	3·6	1·9	¹	2·1	2·3	1·2	1·9	1·3	2·05
1923	¹	2·2	3·8	2·4	¹	2·3	2·3	1·3	2·0	1·3	2·17
1924	¹	2·3	4·1	2·3	¹	2·4	2·7	1·5	2·0	1·7	2·36
1925	¹	2·3	4·4	2·7	¹	2·7	2·7	1·7	2·6	2·0	2·62
1926	2·63	2·3	4·4	2·6	2·5	2·7	3·2	1·0	2·5	1·9	2·70
1927	·2·87	2·1	5·2	2·8	2·8	2·9	3·2	1·1	2·8	2·0	2·91
1928	·3·07	3·0	5·7	3·0	2·9	3·2	3·5	2·2	3·0	2·0	3·17
1929	3·19	2·4	5·2	3·1	2·9	3·5	3·6	2·5	3·2	2·6	3·35
1930	3·31	2·3	4·9	3·0	3·0	3·7	3·7	2·8	3·2	2·4	3·47
1931	3·48	3·8	5·4	3·4	2·9	4·0	3·6	3·0	3·7	2·8	3·77
1932	3·60	3·7	5·5	3·4	3·0	4·2	3·6	3·1	3·6	3·4	3·93
1933	3·78	3·0	6·0	3·6	3·2	4·4	3·5	3·2	3·9	3·7	4·11
1934	3·65	4·3	5·8	3·6	3·1	4·0	3·8	3·4	3·6	3·5	3·96
1935	3·77	4·1	5·7	3·9	3·3	4·2	3·5	3·3	3·8	3·2	3·90
1936	3·92	3·4	6·1	3·9	3·3	4·5	3·8	3·7	3·8	3·6	4·25

¹ Quebec not in National System.   ² Eight provinces, exclusive of Quebec.

In the matter of illegitimate births it is probable that the increase is not wholly true but is in part attributable to better registration of these births. It is not merely a question of ensuring that the birth is registered but also the checking on false registration as legitimate. It is known that efforts in this direction have produced some results, though their extent is not measurable. Nevertheless, it would appear that there has also been a steady increase in the proportion of births to unmarried women as compared with all live births. In part, again, this increase may be attributed to the decline in the legitimate birth rate.

The illegitimate birth rate computed as for Statement XXI has importance as indicating what proportion of the generation which is being produced will suffer from the disadvantages

attending on illegitimacy, disadvantages which, however, have been lessened by statutory provisions in every province for the support of such children by the mother and the putative father.

We may, however, compute a rate of births to unmarried mothers in the same manner as the specific fertility rates which have already been presented for married women. Such rates for unmarried women are given in Statement XXII for the Registration Area and for each province contained in it. The rates are for the average of 1921-22 and of 1931-32.

XXII.—SPECIFIC FERTILITY RATES[3] OF UNMARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, REGISTRATION AREA AND PROVINCES, FOR THE AVERAGE OF 1921-1922 AND OF 1931-1932

Province and Year	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Registration Area[4]—							
Average 1921-22	4·9	8·3	6·0	5·5	3·7	1·3	1
Average 1931-32	6·4	11·8	10·2	7·7	5·5	2·4	0·3
Prince Edward Island—							
Average 1921-22	4·2	8·6	8·2	1	1	–	–
Average 1931-32	7·4	11·7	12·7	1	1	1	–
Nova Scotia—							
Average 1921-22	6·9	12·5	8·0	5·8	3·8	1	1
Average 1931-32	10·5	17·3	17·2	9·2	7·9	1	1
New Brunswick—							
Average 1921-22	4·5	8·9	6·3	1	1	1	–
Average 1931-32	7·7	12·3	10·5	8·1	7·3	1	1
Ontario—							
Average 1921-22	4·9	7·2	5·3	4·5	3·0	0·8	1
Average 1931-32	7·2	11·3	9·2	6·7	4·0	2·1	1
Manitoba—							
Average 1921-22	5·7	11·7	8·9	8·9	6·5	1	1
Average 1931-32	5·1	9·8	7·4	7·3	5·9	1	1
Saskatchewan—							
Average 1921-22	4·0	6·4	6·0	9·6	6·2	1	
Average 1931-32	4·7	12·5	12·5	11·7	11·7	5·1	1
Alberta—							
1922	5·4	12·3	9·3	9·2	1	1	
1932	5·8	15·4	15·6	10·7	12·0	1	1
British Columbia—							
Average 1921-22	3·2	4·1	2·9	2·6	1	1	
Average 1931-32	3·3	7·3	7·3	7·6	4·7	1	1

[1] Absolute figure less than 20.   [3] Rates per 1,000 unmarried women of age specified.
[2] See footnote to Statement XV, page 42.   [4] Eight provinces, exclusive of Quebec.

It will be observed that whereas the specific fertility rates for married women were highest for ages 15-19, those for unmarried women were generally highest for ages 20-24.

Considering the Registration Area every age group shows a pronounced advance in the rate for 1931-32 over that of 1921-22. The greatest increase was in the 40-44 group; absolute figures are small, the aggregate of 1921-22 being 76 births and of 1931-32, 171 births. The increase next in magnitude was in the 25-29 group where the rate for 1931-32 was 70 p.c. more than in 1921-22. Rates for age group 20-24 years and for those between 30 and 40 years increased between 40 and 50 p.c. and the increase in the youngest age group of all was but slightly over 30 p.c.

Every province except Manitoba showed increased rates in almost all age groups. Manitoba, however, showed a definite decline in the rate for each age group.

OTHER FACTORS AFFECTING TREND IN FERTILITY

It has been seen from Statement XXI that births to unmarried women play a comparatively small part in determining the birth rate of Canada. Statement XX has shown that during the decade between 1921-22 and 1931-32 an important decline took place, in general, in the specific fertility rates of married women. It will now be appropriate to consider other factors which affected the decline in the crude birth rate during this decade. It is proposed to consider the following factors:—

    (1) The proportion of women of child-bearing ages to the total population;
    (2) The proportion of women of child-bearing ages who were married;
    (3) The age distribution of the married women of child-bearing ages;
    (4) The specific fertility rates of married women of child-bearing ages. (This has already been dealt with as an isolated fact.)

Proportion of Women of Child-Bearing Ages to the Total Population.—Considering, first, the proportion of women of child-bearing ages to the total population, it may be interesting to examine the proportions which have been shown at recent censuses of various countries. These are given in Statement XXIII.

XXIII.—PERCENTAGE PROPORTION OF WOMEN 15-49 YEARS OF AGE TO TOTAL POPULATION IN VARIOUS COUNTRIES AT RECENT CENSUSES

Country	Proportion of Women 15-49 to Total Population	Year of Census	Country	Proportion of Women 15-49 to Total Population	Year of Census
Switzerland	28·2	1930	Australia	26·3	1933
England and Wales	28·0	1931	Greece	26·3	1928
Germany	28·0	1933	Northern Ireland	26·2	1926
Belgium	27·8	1920	Norway	26·2	1930
Austria	27·4	1934	Union of South Africa (Whites)	26·0	1931
France	27·2	1926	The Netherlands	25·9	1930
Scotland	27·0	1931	Italy	25·5	1921
Finland	26·9	1930	Egypt	24·8	1927
Sweden	26·7	1930	Bulgaria	24·7	1934
United States	26·6	1930	Canada (Registration Area)	24·7	1931
Poland	26·5	1931	Eire	23·8	1926
New Zealand	26·4	1926			

For this purpose the child-bearing period has been taken, as in the other computations in this monograph, from the 15th to the 50th birthday. It will be observed that for the countries selected in the statement the proportion varies from a low of 23·8 p.c. in Eire to a high of 28·2 p.c. in Switzerland. Obviously, this proportion is affected by several factors. Where fertility rates are heavy there will be an obvious tendency toward an increase in the proportion of children in the population and a corresponding decrease in the proportion of adults at the reproductive ages. The war losses have had considerable effect on the sex proportion of some countries, tending to raise the proportion of women to the total population and thus of women of child-bearing ages. Again, the lengthening of human life must to some extent tend towards a decrease in the proportion shown in the statement by increasing the relative number of aged persons. Obviously, if sex proportions, tendency to marry, age distribution of females in the child-bearing ages and their fertility within marriage were equal in two countries, the one with a proportion of 28 p.c. of women of child-bearing ages should have a crude birth rate one-sixth greater than that of a country with the corresponding proportion only 24 p.c.

This proportion may also be of some service as giving a rough but definite meaning to a crude birth rate of a given size. If, say, 25 p.c. of the total population consists steadily of women between the ages of 15 and 50 and if, on the average, each of these women gave birth to one living child every five years during the period, making seven births in all, then the crude birth rate should be about 50 per thousand, a figure considerably above that recorded for any of the countries in Statement XXIII.

Statement XXIV shows the proportion of women of child-bearing ages to the total population in the Registration Area and the eight provinces contained in it, as shown by the Census of 1921 and the Census of 1931. For 1921, the proportion ranges from 22·0 in Saskatchewan to 25·7 in Ontario.

XXIV.—PERCENTAGE PROPORTION OF WOMEN 15-49 YEARS OF AGE TO TOTAL POPULATION, REGISTRATION AREA, CANADA AND PROVINCES, 1921 AND 1931

Province	1921	1931	Province	1921	1931
Registration Area	24·4	24·7	Registration Area—Con.		
Prince Edward Island	22·8	21·9	Saskatchewan	22·0	23·2
Nova Scotia	23·6	23·0	Alberta	22·6	23·7
New Brunswick	23·4	23·1	British Columbia	24·1	24·3
Ontario	25·7	25·6	Quebec	24·2	25·0
Manitoba	24·2	25·4	CANADA	24·3	24·8

Comparing the two censuses, it is observed that the total of the eight provinces showed a slightly higher proportion in 1931 and that the individual provinces varied in the direction of the change. The change in the decade shows an interesting East to Middle West trend, setting out with a rather heavy decline in Prince Edward Island and ending with a somewhat heavier increase in Saskatchewan. This trend is slightly interrupted by the fact that Quebec and Ontario interchange positions. The latter is the pivot point between decrease and increase while Quebec shows the western tendency. This trend is all the more interesting in that it is consistent with the behaviour observed in other attributes of the population, even to the slight fading away in Alberta and British Columbia. The second greatest proportional change was in Manitoba,

where the proportion increased from 24·2 p.c. to 25·4 p.c. but, while the movement of the crude birth rate in Manitoba during the period was markedly downward, the change in the proportion of women of child-bearing ages would not of itself have affected the crude birth rate by more than about 5 p.c. Examination of the figures, therefore, leads to the conclusion that a change in the proportion of the women of child-bearing ages to the total population had little effect in either accelerating or retarding the fall in the crude birth rate during the decade.

PROPORTION OF WOMEN
15–49 YEARS OF AGE
TO THE TOTAL POPULATION
IN
1921 AND 1931
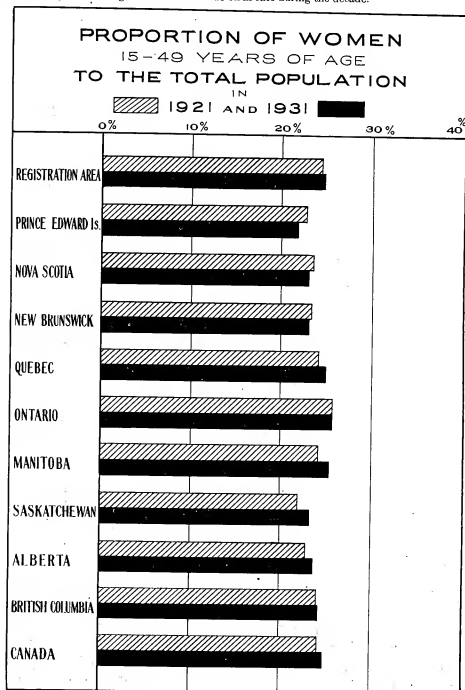
Chart 5

Proportion of Women of Child-Bearing Ages Who Were Married.—We must next consider the change in the proportion of women of child-bearing ages who were married in 1921 and 1931. The figures are given in Statement XXV. For convenience of reference in connection with certain remarks which will be made, the proportions for 1911 are also included.

XXV.—PERCENTAGE OF MARRIED WOMEN 15-49 YEARS OF AGE TO ALL WOMEN, BY AGE GROUP, REGISTRATION AREA, 1911, 1921 AND 1931.

Age Group	1911	1921	1931	Age Group	1911	1921	1931
15-49..........................	56·7	61·0	58·6	15-49—Con.			
15-19..........................	7·6	7·3	5·7	35-39......................	80·6	83·5	84·1
20-24..........................	40·1	44·2	39·4	40-44......................	80·7	82·9	84·0
25-29..........................	66·3	70·6	69·3	45-49......................	79·0	80·6	82·2
30-34..........................	77·1	81·0	81·3				

In spite of the effect of the War in delaying or preventing marriages and of the loss of a considerable number of men eligible for marriage, the Census of 1921 presented a picture of the conjugal condition of the female population more favourable to high fertility not only than that of 1931 but also, and in still greater degree, than the Census of 1911. This may be contrary to the general opinion which perhaps holds that, decade by decade, the tendency to marry late and in some cases to remain celibate is increasing. This tendency is certainly evinced for the female population between 1921 and 1931, the former census showing higher proportions married in the three age groups under 30, almost equal in the age group 30-34 years and somewhat inferior proportions in the three highest age groups. But the comparison with 1911 has already shown that the conjugal condition of the women of 1921 was more favourable than ten years before and, as the comparison between 1911 and 1931 is, on the whole, in favour of the latter, though not in the two first age groups, we must avoid considering the change between 1921 and 1931 as part of a long time trend.*
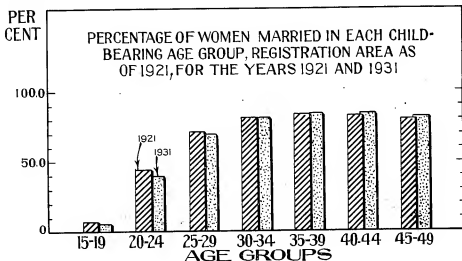
Chart 6

Statement XXVI shows for provinces the data that Statement XXV shows for the whole Registration Area. It will be readily seen that the comments on trend in the latter statement apply to the former as well.

* See also Volume I, Census of Canada, 1931, Chapter LV.

XXVI.—PERCENTAGE OF MARRIED WOMEN 15-49 YEARS OF AGE TO ALL WOMEN, BY AGE GROUP, REGISTRATION AREA AND PROVINCES, 1921 AND 1931

Age Group	Registration Area[1]	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1921									
15-49	61·0	51·1	54·8	56·4	58·2	62·8	60·3	69·2	66·3
15-19	7·3	3·8	5·7	8·0	6·1	8·0	10·6	10·5	6·6
20-24	44·2	30·8	38·5	42·9	39·8	46·6	58·5	56·8	46·2
25-29	70·9	60·4	66·6	68·9	66·7	73·6	82·5	81·5	73·4
30-34	83·5	77·1	78·1	78·4	77·3	83·4	90·0	88·5	83·9
35-39									
40-44	82·0	78·5	81·7	81·6	79·6	85·9	91·7	90·7	86·0
45-49	80·6	81·1	78·7	81·6	80·2	85·4	88·5	87·0	82·9
1931									
15-49	58·6	53·1	55·0	55·2	58·0	56·3	61·1	63·1	60·9
15-19	5·7	4·7	6·5	6·6	5·6	4·8	5·9	6·8	5·2
20-24	39·4	34·7	38·6	38·6	37·5	35·0	45·1	47·4	39·3
25-29	69·3	62·4	65·7	67·2	66·3	57·6	78·7	78·7	70·3
30-34	81·3	70·9	78·5	78·8	78·7	81·8	88·8	89·0	82·5
35-39	84·1	83·2	82·0	83·3	81·4	85·7	91·6	90·1	84·9
40-44	84·0	79·0	82·9	82·9	81·1	86·5	91·2	90·0	84·9
45-49	82·2	79·9	79·9	80·8	79·5	84·1	89·9	88·2	84·0

[1] Eight provinces, exclusive of Quebec.

It is impossible to carry comparisons back farther than 1911 for individual age groups or for the total of the child-bearing ages. It may be interesting, however, to compare the proportion of married women in the total population in the years 1891, 1901, 1911 and 1931 with the corresponding proportion in 1921. As the census reports of 1891 and 1901 do not show conjugal condition by age, a fair comparison can only be effected by using the method of expected numbers. That is to say, working with the results of the Census of 1921 as the standard, we apply the percentage of married women in each age group to the corresponding numbers of women in the same age groups at the other censuses to determine how many in each group we should expect to find married if conditions in this respect were exactly as in 1921. Adding the expected numbers in the various age groups together, we obtain the total number of females we might expect to find married on this basis and compare the actual total number at each census with this expected total number. By this method, of course, the computation can be made only for the total of females, not merely for those of child-bearing ages.

XXVII.—ACTUAL NUMBER OF MARRIED WOMEN IN THE REGISTRATION AREA, 1891, 1901, 1911 AND 1931, BY QUINQUENNIAL AGE GROUPS, COMPARED WITH THE NUMBER EXPECTED FROM THE PROPORTION MARRIED IN EACH AGE GROUP, 1921

Age Group	Female Population, All Conjugal Conditions				Proportion Married at Census of 1921	Expected Number Married at Census of			
	1891	1901	1911	1931		1891	1901	1911	1931
15 and over	1,021,187	1,180,912	1,592,236	2,456,895		583,877	687,771	948,706	1,464,648
15-19	173,902	187,054	229,030	361,437	7·26	12,625	13,580	16,628	26,240
20-24	164,328	174,567	228,099	310,618	44·17	72,584	77,119	101,012	137,200
25-29	134,075	144,058	210,903	262,595	70·95	95,129	102,209	149,636	186,311
30-34	106,182	123,117	180,114	244,273	81·03	86,039	99,762	145,946	197,934
35-39	88,494	112,090	134,940	244,089	83·53	73,919	93,629	129,046	203,888
40-44	77,133	97,168	130,431	224,014	82·39	63,936	80,543	108,154	185,688
45-49	64,897	79,275	112,310	200,451	80·61	52,313	63,904	90,533	161,584
50-54	58,358	68,411	96,670	168,413	76·97	44,335	51,979	73,440	127,943
55-59	42,622	54,602	71,708	125,814	71·38	30,424	38,975	51,184	89,806
60-64	40,049	49,440	59,755	103,556	62·06	24,554	30,062	37,084	64,267
65-69	27,177	35,537	45,402	83,076	52·67	14,314	18,717	23,913	43,756
70-74	20,530	26,135	33,367	62,845	49·25	8,263	10,519	13,439	25,295
75-79	12,145	16,318	21,044	36,216	28·59	3,437	4,616	5,955	10,249
80-84	7,023	9,125	11,563	18,599	18·10	1,271	1,652	2,093	3,384
85 and over	4,271	4,985	6,700	10,802	10·24	437	510	692	1,106
Actual number of women married						528,899	625,139	911,205	1,456,401
Proportion of actual to expected						90·58	90·89	96·05	99·44

As already indicated, the results of this comparison are somewhat surprising in view of the opinion generally held that larger proportions of women are unmarried in recent years than a generation or two ago. The comparison is limited to the Registration Area in view of the fact that this is the area with which we are dealing in the analysis of fertility. The Census of 1891 shows the number of married women in this area forming only 90·6 p.c. of the number which would be expected if the ratios of 1921 held true in the various five-year groups commencing with the 15-19 group. For the Census of 1901 the actual number was very slightly larger in proportion to the expected, 90·9 p.c. The year 1911 showed the actual number married as 96 p.c. of the expected. While the year 1931 showed a number of married women smaller than the expected number based on the ratios of 1921, the difference between actual and expected was very much less than in the censuses earlier than 1921, the ratio of actual to expected in 1931 being 99·4 p.c.

From the closeness of the actual to the expected number in 1931, on the basis of 1921 ratios, it might seem at first glance as though conjugal condition of the female population was a very slight factor in the decline of the birth rate during the decade. It must be considered, however, in the first place that the computation just given was for women of all ages whereas only the conjugal condition of the women of child-bearing ages can have any effect on the birth rate. Statement XXV shows that at all ages between the 15th and the 50th birthday, 61·0 p.c. of the women were married in 1921 and only 58·6 p.c. in 1931. Moreover, if we examine the figures of Statement XXV by age groups, it will be observed that the two youngest groups, 15-19 years and 20-24 years, show a substantial decline in the proportion of women married, than the 25-29 group shows a comparatively slight decline and the four older age groups show increases, ranging from very slight in the 30-34 group to moderate in the oldest age group.

A result of this decrease in the proportion of women married in the younger groups and the increase in the older groups has been to alter the age distribution of the married women of child-bearing ages between 1921 and 1931 in a way that is less favourable to high fertility, since the younger groups are more fertile. This fact is brought out in Statement XXVIII which shows, for the Registration Area and for the eight provinces which it contains, the percentage distribution in 1921 and 1931 of the married women between the 15th and 50th birthdays according to age within these limits.

XXVIII.—PERCENTAGE DISTRIBUTION OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, REGISTRATION AREA AND PROVINCES, 1921 AND 1931

Age Group	Registration Area[1]	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
				1921					
15-49	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
15-19	2·1		2·2	3·0	1·8	2·3	2·8	2·6	1·5
20-24	11·8	10·8	12·7	13·8	11·2	12·0	13·6	12·9	9·8
25-29	18·6	15·0	18·6	18·8	18·2	19·5	19·9	19·2	16·7
30-34	19·7	17·5	18·1	18·0	19·5	20·4	20·7	20·5	20·2
35-39	19·3	18·9	18·4	17·9	19·2	19·5	19·3	19·4	21·5
40-44	15·9	17·1	15·8	15·3	16·4	15·0	14·2	14·9	17·5
45-49	12·6	16·5	14·3	13·2	13·7	11·2	9·6	10·4	12·3
				1931					
15-49	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
15-19	1·9	2·0	2·5	2·6	1·7	1·5	2·2	2·3	1·5
20-24	11·3	10·8	13·1	12·5	10·5	11·1	13·1	13·2	10·2
25-29	16·8	15·3	16·4	17·0	16·7	16·8	17·5	18·0	15·5
30-34	18·3	17·9	17·9	18·1	18·0	17·7	17·8	18·0	17·4
35-39	19·0	20·2	19·0	19·0	19·3	19·3	18·4	17·9	19·0
40-44	17·4	17·7	16·8	16·2	17·5	17·9	16·8	16·5	18·8
45-49	15·2	16·0	15·4	14·0	15·2	15·4	14·2	14·2	17·7

[1] Eight provinces, exclusive of Quebec.

Considering the Registration Area, the age groups under 40 show a smaller proportion to the total in the later year while the converse is true for the older age groups. Thus the age group 45-49 years which has very little importance in relation to fertility contained 12·6 p.c. of the married women of child-bearing ages in 1921 and 15·2 p.c. in 1931. Throughout the province the tendency has been in general the same with occasional exceptions for certain age

groups and in some cases a much more pronounced change in the proportion of the older groups.
Thus, in Saskatchewan the least fertile age group contained only 9·6 p.c. of the total in 1921 and
14·2 p.c. in 1931.
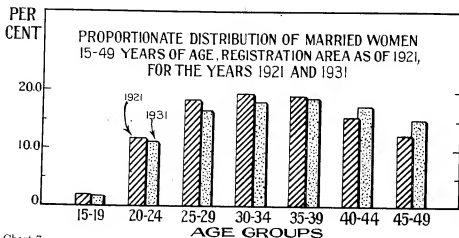
Chart 7

SUMMARY OF FACTORS AFFECTING THE CANADIAN BIRTH RATE

We are now in a position to consider the individual and joint effect of five factors affecting
the crude birth rates of 1921-22 and 1931-32. It will be noted that the factors which result from
different proportions at the Census of 1921 and the Census of 1931 are quite applicable to the
birth rates for the average of two years, 1921-22 and 1931-32 because specific fertility rates have
been computed on the assumption that the proportions by age and conjugal condition were the
same in 1922 as in 1921 and in 1932 as in 1931.

The factors are as follows:—

    A—the change in the proportion of women of child-bearing ages to the total popula-
tion;

    B—the change in the proportion of married women to all women within the child-
bearing ages;

    C—the change in the age distribution of married women of child-bearing ages;

    D—the change in the fertility of married women of child-bearing ages;

    E—the change in the proportion of total births to legitimate births.

The proportion of women of child-bearing ages in 1921 and 1931 has been shown in State-
ment XXIV.

The proportion of married women to all women within child-bearing ages and to all women
within each age group of the child-bearing ages has been shown in Statement XXVI for the
Censuses of 1921 and 1931.

The age distribution of married women by age groups within the child-bearing ages in 1921
and 1931 has been shown in Statement XXVIII.

The specific fertility rates of married women of the child-bearing ages in 1921-22 and 1931-32
have been shown in Statement XIX.

The proportion of total live births to legitimate births for 1921-22 and 1931-32 has been
computed directly from the births of these years.

Before considering the relationship of each factor to the total decline in the birth rate, we
shall discuss the total fertility of married women between the 15th and 50th birthdays as affected,.
(1) by the change in their specific fertility rates and (2) by the change in their age distribution.
The figures of Statement XXIX contain the results of such an analysis. The specific fertility
rates of 1921-22 are applied first to the age distribution of the married women of child-bearing
ages in 1921 and give a total fertility rate for the Registration Area of 170·2 per thousand.
The same fertility rates, however, when applied to the age distribution of 1931 give a total
fertility rate for all women of child-bearing ages of 160·9 per thousand. In similar manner, the

specific fertility rates of 1931-32, applied to the age distribution of 1921, give a total fertility rate of 144·8 for the women of child-bearing ages whereas, applied to the actual age distribution of 1931, they give a total fertility of only 136·8. The lower total fertility in the second column in the statement is, of course, due to the more unfavourable age distribution in 1931 than in 1921.

XXIX.—TOTAL FERTILITY RATES[1] FOR THE CHILD-BEARING AGES, 1921 AND 1931, BASED ON (A) FERTILITY RATES OF 1921-1922 AND (B) FERTILITY RATES OF 1931-1932 REGISTRATION AREA AND PROVINCES

Province	With Fertility Rates of 1921-22 and		With Fertility Rates of 1931-32 and	
	Age Distribution of 1921	Age Distribution of 1931	Age Distribution of 1921	Age Distribution of 1931
Registration Area[2]	170·152	160·572	144·810	136·810
Prince Edward Island	204·032	202·871	184·797	182·118
Nova Scotia	184·236	178·900	173·140	167·853
New Brunswick	223·268	213·007	209·525	199·594
Ontario	160·755	154·688	132·287	126·455
Manitoba	189·471	172·922	150·157	130·258
Saskatchewan	190·477	175·488	169·090	154·943
Alberta	169·313	161·071	155·664	147·727
British Columbia	120·877	114·099	101·529	90·348

[1] Rates per 1,000 married women 15-49 years of age.
[2] Eight provinces, exclusive of Quebec.

Individual and Joint Effects of Factors.—We may now consider the individual and joint effects of factors A to E as shown in Statement XXX.

XXX.—ANALYSIS OF PERCENTAGE CHANGE IN CRUDE BIRTH RATES BETWEEN 1921-1922 AND 1931-1932, REGISTRATION AREA AND PROVINCES

Province	Crude Rates of 1931-32 as Percentage of Rates of 1921-22	Effect of Each Factor Contributing to Change in Percentage of Crude Rates, if Working Alone							Product of Factors A-E[2]
		A	B	C First Method	C Second Method	D First Method	D Second Method	E	
Registration Area[2]	79·8	101·19	96·07	94·48	94·55	85·11	85·04	101·91	79·7
Prince Edward Island	90·8	96·14	104·53	98·87	99·43	90·28	89·77	131·31	90·9
Nova Scotia	91·0	97·79	100·36	96·94	97·10	93·48	93·82	102·26	91·4
New Brunswick	87·9	98·76	97·87	95·26	95·60	95·85	93·70	101·64	87·8
Ontario	80·0	99·73	99·66	95·59	95·85	82·29	82·07	102·07	79·8
Manitoba	68·6	105·17	89·65	89·55	90·74	91·27	78·30	101·32	68·7
Saskatchewan	77·4	105·53	88·17	91·63	92·13	88·77	88·29	101·99	77·4
Alberta[1]	84·1	103·89	91·18	94·91	95·13	91·94	91·72	101·82	84·2
British Columbia	75·5	100·95	91·86	94·90	94·30	83·99	84·44	101·90	75·3

[1] 1922-32 used for Alberta (see footnote to Statement XV, page 42).
[2] Eight provinces, exclusive of Quebec.
[3] First method of calculating factors C used (see text).
A—Change in proportion of women of child-bearing ages (15-49 years) to total population.
B—Change in proportion of married women to all women within child-bearing ages.
C—Change in age-distribution of married women of child-bearing ages (second method used for product).
D—Change in specific fertility rates of married women of child-bearing ages (second method used for product).
E—Change in proportion of total births to legitimate births.

Taking again the Registration Area as an example, we observe first that the crude birth rate of 1931-32 was 79·8 p.c. of the crude birth rate of 1921-22.

Factor A, the change in the proportion of women of child-bearing ages to the total population, would, if acting alone, have accounted for an increase of 1·19 p.c. in the crude birth rate since this proportion was slightly greater in 1931 than in 1921.

Factor B, if acting alone, would have reduced the crude birth rate of 1931-32 to 96·07 p.c. of what it was in 1921-22 since the proportion of married women to all women within the child-bearing ages declined between 1921 and 1931.

The effect of factor C, the change in the age distribution of married women of child-bearing ages, can be obtained in two ways, each equally legitimate: either by dividing 160·9 by 170·2 or by dividing 136·8 by 144·8. (For the purpose of division the figures of Statement XXIX were carried to three decimal places.) In the first instance we have a quotient of 94·48 p.c.; in the second, of 94·55 p.c.

Factor D, the change in specific fertility of married women of child-bearing ages, is also obtained in two ways, each equally legitimate, from the figures of Statement XXIX. We may

divide 144·8 by 170·2 or 136·8 by 160·9. In the first case we obtain a quotient of 85·11 p.c.; in the second case, of 85·04 p.c.

Factor E, the effect of the change in proportion of total births to legitimate births, is obtained directly from the aggregate of legitimate and illegitimate births for the two years 1921-22 and the two years 1931-32. For the Registration Area in 1921-22 illegitimate births formed 2·05 p.c. of legitimate births; in 1931-32 they formed 4·00 p.c. of the legitimate. The division of 104·00 by 102·05 gives a quotient of 101·91 p.c., the figure shown in Statement XXX. Thus, if the factors contributing to the legitimate birth rate had remained unaltered, the increase in the proportion of illegitimate births to legitimate births during the decade would have resulted in an increase of 1·91 p.c. in the crude birth rate of 1931-32 as compared with the crude birth rate of 1921-22.

The weak point in the analysis is, of course, that factors C and D can be computed by two methods, each equally legitimate. Examination of the statement, however, for the Registration Area and for each province composing it, shows that in all cases the results of the two methods are reasonably close and in some almost identical. In combining these two factors, it may be observed that either the results of the two first methods or the results of the two second methods must be used since these have been selected in such a way that they complement each other.

If, now, we take the percentages for the Registration Area which represent the single effect of each factor and multiply these percentages together, we should expect to obtain as a result the percentage which the crude birth rate of 1931-32 forms of the crude birth rate of 1921-22. The products are shown in the last column. If we take the Registration Area, the product of 101·19, 96·07, 94·48, 85·11 and 101·91 equals 79·7 p.c. The difference between this and the actual proportion, 79·8 p.c., which the crude birth rate of 1931-32 formed of the crude birth rate of 1921-22, is negligible due merely to the inexactitude of the decimals or such slight factors as "not stated" ages. It will be observed that in obtaining this product we could have taken, instead of 94·48 times 85·11, the alternative 94·55 times 85·04.

This analysis shows the important part which the decline of fertility within marriage played in the reduction of the birth rate. Two of the factors, the change in the proportion of women of child-bearing ages and the change in the proportion of total to legitimate births, would by themselves actually have accounted for a slight increase. The reduced proportion of married women to all women within the child-bearing ages would in itself have accounted for a reduction of about 4 p.c. in the birth rate. The more unfavourable distribution of married women in the child-bearing ages in the later census would have accounted for a reduction of about 5·5 p.c. but the decline in specific fertility without the aid of any other factor would have brought about a reduction of about 15 p.c. out of a total reduction of about 20 p.c.

Directing attention to the individual provinces, this decline in specific fertility would have accounted for a reduction of about 10 p.c. in the birth rate of Prince Edward Island, about 6 p.c. in Nova Scotia, over 6 p.c. in New Brunswick, about 18 p.c. in Ontario, about 21 p.c. in Manitoba, about 11·5 p.c. in Saskatchewan, about 8 p.c. in Alberta, and about 16 p.c. in British Columbia.

The change in the proportion of women of child-bearing ages to the total population worked unfavourably for the four eastern provinces and favourably for the four western. Prince Edward Island suffered the most, with a decline which alone would have effected a reduction of about 4 p.c. in the birth rate. On the other hand, from this cause acting alone, both Manitoba and Saskatchewan would have gained over 5 p.c. in the birth rate.

The proportion of married women to all women of child-bearing ages was more favourable in 1931 in only Prince Edward Island and Nova Scotia and the change in the latter province was trivial. It was most unfavourable in Saskatchewan and Manitoba in both of which it alone would have accounted for a reduction of more than 10 p.c. in the birth rate.

The change in the age distribution of married women within child-bearing ages was unfavourable throughout all provinces, but mostly so in Manitoba and Saskatchewan, where its effect would have accounted for a decline of 8 to 9 p.c.

In brief, *this analysis indicated that of all the factors which contributed to a decline in the crude birth rate of the Registration Area between the years 1921-22 and 1931-32, the change in the age distribution of married women of child-bearing ages was unfavourable throughout all provinces, but mostly so was the decline in the specific fertility rates of married women.*

CHAPTER III

ORDER OF BIRTH

INTRODUCTORY AND EXPLANATORY

In Chapter II most of the analysis, especially that which concerned trends, referred to the Registration Area of 1921. Chapter III, on the other hand, refers mainly to all Canada except Yukon and Northwest Territories. This is because the entire nine provinces were in the National System of Registration by the time the order of birth was first tabulated.

Commencing with the year 1927, regular tabulations of the order of birth of children have been made annually. Stillbirths are included with live births in these tabulations which apply only to legitimate children.

The questions on the birth certificate on which the tabulations are based are as follows:—

Children of this mother (including the present birth)—
(a) Number born alive;
(b) Number now living;
(c) Number stillborn (born dead after twenty-eight weeks' pregnancy).

Where a twin birth occurs, both children are tabulated as of the order of birth of the later twin. It will be noted that this follows from the form of the questions. However, as children who are twins form, on the average, only about 1 in 43 of the total number of children born, this fact has little significance. The application of the same rule for triplets is, of course, altogether without significance owing to their very small number.

Though only available from the year 1927, the tabulations of order of birth afford a useful indication of the general trend in size of family and have, also, a special value in relation to the effect of the economic depression of 1930 and following years on the birth rate of Canada. We will consider this special value first.

As a background to analysis of births by order of birth in relation to the part of the population responsible for these births, Statement XXXI and Chart 8 show (a) the proportion of married women to all women 15-49 and (b) the proportion of women at the same age groups who were represented in the legitimate births of 1931.

XXXI.—PERCENTAGES OF ALL WOMEN 15-49 YEARS OF AGE WHO WERE (A) MARRIED, (B) REPRE-SENTED BY THE LEGITIMATE BIRTHS, BY QUINQUENNIAL AGE GROUPS, CANADA, 1931

Age Group	P.C. Married of Women in Age Group	P.C. of Women in Age Group Repre-sented by Legitimate Births	Age Group	P.C. Married of Women in Age Group	P.C. of Women in Age Group Repre-sented by Legitimate Births
15–19	5·04	2·51	35–39	82·66	10·55
20–24	36·51	13·39	40–44	82·77	4·56
25–29	66·65	17·62	45–49	81·43	0·56
30–34	79·25	14·77			

PROPORTION OF ALL WOMEN
15-49 YEARS
(a)WHO WERE MARRIED,1931
(b)WHO WERE REPRESENTED BY THE LEGITIMATE BIRTHS
OF 1931

PER CENT

AGE GROUPS
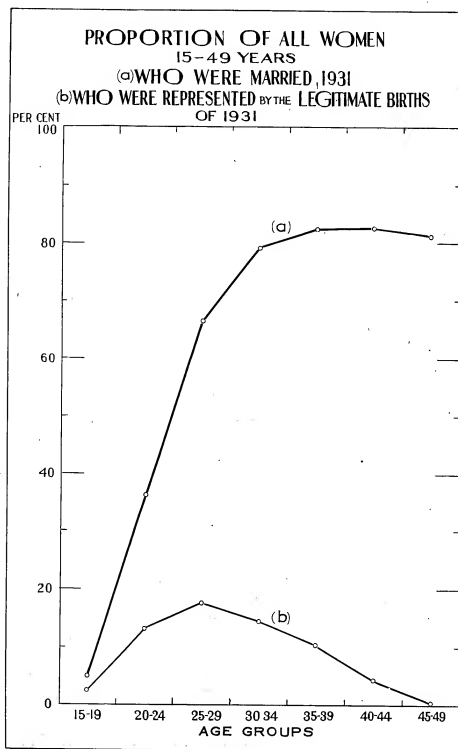
Chart 8

Births during the Period of Observation of Order of Birth.—Statement XXXII gives the order of birth of legitimate children born in Canada in each year over the period 1927-36.

XXXII.—NUMERICAL DISTRIBUTION OF LEGITIMATE CHILDREN[1] ACCORDING TO ORDER OF BIRTH, CANADA, 1927-1936

Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
All orders	234,507	236,722	235,065	242,710	239,294	234,097	220,914	219,331	219,208	217,755
1st child	49,612	52,107	54,372	57,736	55,486	52,067	48,386	49,165	52,951	55,386
2nd "	40,927	41,847	42,965	45,271	45,710	45,053	42,274	41,294	41,027	41,365
3rd "	32,684	32,649	32,330	33,157	33,359	33,037	32,006	31,429	30,544	29,139
4th "	26,135	25,302	24,590	24,889	24,905	24,559	23,600	23,339	23,111	22,120
5th "	20,898	20,417	19,122	19,097	18,573	18,597	17,690	17,451	17,185	16,766
6th "	15,951	16,093	15,351	15,367	14,530	14,354	13,799	13,551	13,180	12,735
7th "	12,316	12,407	12,031	12,161	11,930	11,606	10,703	10,536	10,254	10,112
8th "	9,721	9,878	9,200	9,442	9,457	9,370	8,593	8,436	8,122	7,816
9th "	7,460	7,379	6,945	7,243	7,099	7,312	6,710	6,816	6,132	6,065
10th "	5,760	5,682	5,496	5,536	5,523	5,523	5,323	5,327	4,941	4,813
11th "	4,188	4,132	3,966	4,001	3,939	3,984	3,548	3,794	3,803	3,628
12th "	2,994	3,191	2,841	2,944	3,022	2,971	2,739	2,763	2,734	2,710
13th "	2,058	2,078	2,050	2,085	1,978	2,054	1,936	1,928	1,868	1,836
14th "	1,358	1,291	1,291	1,381	1,356	1,385	1,193	1,279	1,224	1,222
15th "	895	864	870	810	834	868	803	843	789	771
16th "	534	505	519	518	483	480	481	481	465	455
17th "	329	312	282	303	267	304	274	248	296	275
18th "	175	201	168	162	172	143	160	165	144	129
19th "	87	96	104	84	82	92	65	78	77	82
20th and over	101	119	85	102	100	96	98	100	92	78
Not stated	314	375	436	421	313	242	205	302	289	231

[1] Including stillbirths.

It will be observed from the absolute figures that the total number of legitimate births (including stillbirths) varied little between the years 1927 and 1929. The year 1930 showed a substantial increase in the number amounting to more than 7,500. With 1931 a decline commenced which lasted till 1936, though from 1933 the differences were small. The total number of legitimate births (including stillbirths) in 1930, the highest year in our order of birth series, was 242,710, while for 1936 it had fallen to 217,755, a decline in all of about 25,000. On account of the comparatively small number of illegitimate live births (which are excluded) and of legitimate stillbirths (which are included) this decline is fairly representative of the decline in the total number of live births, which amounted to about 23,000 between 1930 and 1936.

A study of Statement XXXII, Table 9, Part III, page 146, and the material to follow will help the reader to understand the incidence of the various orders of birth upon these increases and declines.

TREND IN ORDER OF BIRTH DURING THE PERIOD

Relation of Increase or Decrease in Marriages to Order of Birth.—A brief analysis of the table of order of birth will be of great assistance in establishing the effect of the decline in marriages during the depression on the number of births and the influence of other factors which, possibly related to the depression, were not due to the decline in the number of marriages.

Statement XXXIII shows separately the increase or decline in first births, second births and higher orders of birth between 1927 and 1928 and each further pair of successive years ending with 1936. The statement also shows, on the same line as the increase or decrease in the number of first births, the increase or decrease in the number of marriages for the twelve-month period

for which new marriages may be assumed to have most directly affected the number of first births. For each year of birth this twelve-month period extends from April of the preceding year to March of the year under review.

XXXIII.—INCREASE OR DECREASE IN MARRIAGES, BY YEAR OF MARRIAGE, AND CORRESPONDING INCREASE OR DECREASE IN BIRTHS, BY YEAR AND ORDER OF BIRTH, CANADA, BY SINGLE YEARS, APRIL, 1927-MARCH, 1936

Year of Marriage			Marriages	Year of Birth	Total Births	First Births	Births of Other Orders		
							Total	Second Births	Higher Orders
April 1927—March 1928	+2,532	1928	+ 2,215	+2,495	− 341	+ 920	− 1,261
" 1928 " 1929	+4,387	1929	− 1,657	+2,205	−3,983	+1,118	−5,101
" 1929 " 1930	+3,717	1930	+ 7,645	+3,364	+4,296	+2,306	+1,990
" 1930 " 1931	−7,535	1931	− 3,416	−2,250	−1,058	+ 439	−1,497
" 1931 " 1932	−3,630	1932	− 5,197	−3,419	−1,707	+ 657	−1,050
" 1932 " 1933	−4,649	1933	−13,183	−3,671	−9,475	−2,779	−6,096
" 1933 " 1934	+2,379	1934	− 1,583	+ 769	−2,449	− 980	−1,469
" 1934 " 1935	+9,403	1935	− 123	+3,786	−3,896	− 207	−3,629
" 1935 " 1936	+3,142	1936	− 1,453	+2,435	−3,830	+ 338	−4,168

Examining the first column of the statement, which gives the marriages of these successive twelve-month periods, it is observed that the first period which would most directly affect the first births of 1928, i.e., April, 1927-March, 1928, showed an increase of 2,532. The next two twelve-month periods showed more substantial increases but were followed by three periods of decline, of which the first was considerably the greatest and which, by their joint action, produced a total decline from the peak number amounting to more than 15,000. The last three twelve-month periods show recovery in each case, the greatest occurring in the second period when the number of marriages increased by 9,403.

Turning now to the total births of the calendar years 1928-36, it is observed that only the first and third years show increases. The last three years, corresponding to marriage periods in which the changing number of marriages should have affected the first births favourably, all show declines in total births though none are large.

The most outstanding example in the statement of relationship between the change in the number of total births and the change in the number of marriages is for the year 1933, in which total births showed a decline of 13,183. The twelve months ending in March, 1933, showed a decline in marriages of 4,649, following on two preceding twelve-month periods with declines in marriages of 7,535 and 3,630, respectively.

The fourth column of the statement shows increases or decreases in the number of first births corresponding to increases or decreases in the number of marriages for the twelve-month period affecting most directly the first births in each calendar year. As might be expected, the proportion of the change in number of first births to the change in number of marriages is least when the movement in the latter changes direction and greatest when the movement in the number of marriages has been in the same direction for the maximum number of years, which in the statement never exceeds three.

Second births might be most directly affected by a change in the number of marriages for the twelve-month period preceding that which most directly affects the first births. The sixth column of the statement shows some such relationship for the years 1929-34 but the decline in second births continued into the year 1935 and a slight recovery was not apparent until 1936. As might have been expected, therefore, the second births reflect, more weakly than first births and with less exactitude, any increase or decrease in the number of marriages.

For higher orders of birth than the second the relationship is, of course, rather small and undetermined over such a small period of years. With the exception of the year 1930, every year of the period showed a decline in the number of births in higher orders than the second.

The statement demonstrates clearly that the decline in marriages during the depression and the consequent decline in the number of first births accounted for only a fraction of the decline in the total number of births. The failure of the Canadian birth rate to rise again with the increasing number of marriages year by year which commenced with 1933 is easily understood when the downward trend of orders of birth higher than the second is observed to have manifested itself almost without exception during the whole period 1928-36.

Statements XXXIV and XXXV, showing the number of females married in each age group and their average age for the years 1927-36 should be studied for further elucidation.

XXXIV.—NUMBER OF BRIDES 15-49 YEARS OF AGE, BY AGE GROUP, CANADA, 1927-1936

Age Group	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
15-49	67,961	72,707	75,722	70,054	65,140	61,088	62,441	71,591	75,376	79,407
15-19	15,746	16,965	17,403	15,956	15,327	14,570	14,260	15,294	15,265	15,503
20-24	29,755	32,015	33,931	31,249	29,104	27,372	27,978	32,405	34,218	35,714
25-29	12,888	13,714	14,428	13,527	12,294	11,439	12,525	15,165	16,455	17,988
30-34	4,706	4,958	4,931	4,711	4,156	3,815	3,947	4,805	5,363	5,780
35-39	2,511	2,550	2,580	2,360	2,160	1,953	1,866	2,008	2,053	2,342
40-44	1,382	1,447	1,495	1,379	1,254	1,127	1,090	1,131	1,207	1,237
45-49	973	995	1,004	922	903	809	764	783	795	843

XXXV.—AVERAGE AGE OF BRIDES 15-49 YEARS OF AGE, BY AGE GROUP, CANADA, 1927-1936

Age Group	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
	years	years	years	years	years	years	years	years	years	years
15-49	23·8	23·8	23·7	23·8	23·7	23·6	23·6	23·7	23·8	23·9
15-19	18·0	18·0	18·0	18·0	18·0	18·0	18·0	18·1	18·1	18·0
20-24	21·8	21·8	21·8	21·8	21·8	21·8	21·8	21·9	21·9	21·9
25-29	26·6	26·6	26·6	26·6	26·6	26·6	26·6	26·6	26·6	26·6
30-34	31·6	31·7	31·6	31·6	31·6	31·6	31·6	31·6	31·6	31·6
35-39	36·8	36·8	36·8	36·8	36·8	36·8	36·8	36·7	36·7	36·7
40-44	41·7	41·8	41·8	41·8	41·8	41·8	41·8	41·8	41·8	41·7
45-49	46·8	46·8	46·8	46·7	46·8	46·8	46·8	46·9	46·8	46·9

DIFFERENTIAL TREND IN ORDER OF BIRTH

First Births.—Statement XXXVI is based on the absolute figures of Statement XXXI, and shows the percentage distribution of legitimate children according to order of birth over the period 1927-36.

XXXVI.—PERCENTAGE DISTRIBUTION OF LEGITIMATE CHILDREN ACCORDING TO ORDER OF BIRTH, NOT ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, CANADA, 1927-1936

Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
All orders	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
1st child	21·18	22·05	23·17	23·53	23·22	22·26	21·93	22·45	24·19	26·46
2nd "	17·48	17·71	18·31	18·68	19·13	19·27	19·15	18·88	18·74	19·02
3rd "	13·96	13·81	13·80	13·68	13·91	14·13	14·50	14·35	13·93	13·40
4th "	11·16	10·71	10·48	10·27	10·42	10·50	10·60	10·66	10·56	10·17
5th "	8·92	8·64	8·15	7·88	7·90	7·96	5·02	7·97	7·83	7·71
6th "	6·81	6·81	6·34	6·34	6·08	6·14	6·29	6·19	6·02	5·86
7th "	5·26	5·25	5·13	5·02	4·99	4·96	4·85	4·81	4·68	4·65
8th "	4·15	4·00	3·92	3·90	3·96	4·01	3·89	3·85	3·71	3·59
9th "	3·19	3·12	2·96	2·99	2·97	3·13	3·04	3·11	2·80	2·79
10th "	2·46	2·40	2·34	2·25	2·31	2·36	2·41	2·43	2·26	2·21
11th "	1·79	1·75	1·69	1·65	1·65	1·70	1·74	1·73	1·74	1·67
12th "	1·28	1·35	1·21	1·22	1·70	1·27	1·25	1·26	1·24	1·25
13th "	0·88	0·88	0·87	0·86	0·83	0·88	0·88	0·88	0·85	0·84
14th "	0·55	0·55	0·55	0·57	0·57	0·59	0·54	0·58	0·56	0·56
15th "	0·38	0·37	0·37	0·33	0·35	0·37	0·36	0·38	0·36	0·35
16th and over	0·52	0·52	3·49	0·48	0·48	0·48	0·49	0·49	0·49	0·47

It will be observed that the proportion of first births to all births was increasing up to 1930 and that, with the effect of the decline in marriages on first births which has just been considered above, this increase was arrested and during the next three years first births show a declining proportion of the total number. Commencing with the year 1934 and corresponding to an increase in the number of marriages during the twelve-month period, April, 1933–March, 1934, the proportion of first births again starts to mount and this upward movement continues throughout the remaining years. The net effect of these changes was that the proportion of first births increased from 21·18 p.c. of the total in 1927 to 25·46 p.c. in 1936.

Second Births.—The proportion of second births also shows an upward trend throughout the period, interrupted only during the three years 1933–35. This interruption does not, of course, correspond regularly to the movement of second births as shown in Statement XXXIII because the proportion of second births is affected both by the number of first births and the births of a higher order than the second.

Third and Higher Orders.—The change in the proportion of third births during the period was smaller than in either of the other cases, but the general tendency was evidently towards a decline and this decline was only interrupted in the three years during which the proportion of first births was decreasing. The same remark applies to the proportion of fourth births. Here the net decline during the period was greater than in the case of third births and the extent of the interruption during the years 1931–33 was less. With fifth births the interruption is still smaller and the net decline over the whole period greater than for fourth births. The trends discussed in the last three paragraphs, after being adjusted for the influence of age of mother, are shown in Chart 10, page 70.

Summary.—The percentage of decline between 1927 and 1936 in the proportion of each order of birth to the total is shown in Statement XXXVII.

XXXVII.—PERCENTAGE DISTRIBUTION OF LEGITIMATE CHILDREN ACCORDING TO ORDER OF BIRTH, CANADA, 1936, NOT ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, EXPRESSED AS AN INDEX OF THAT OF 1927

Order of Birth of Child	Index	Order of Birth of Child	Index
1st child..	120·2	9th child....................................	87·5
2nd "	108·8	10th "	89·8
3rd "	96·0	11th "	92·3
4th "	91·1	12th "	97·7
5th "	86·4	13th "	95·5
6th "	86·0	14th "	96·5
7th "	88·4	15th "	92·1
8th "	85·5	16th and over..................................	90·4

The upward trend of the proportion of first and second births over so short a period as shown in Statement XXXVI has much more significance from the fact that the order of birth reflects not merely the tendency existing during the period under review but during the whole married life of each woman whose latest child helps to form the picture presented by this statement. It is evident also that the decline in marriages during the depression reduced to an appreciable degree the extent of the upward movement between the first and last year.

INFLUENCE OF AGE OF MOTHER

Importance of Adjustment.—The absolute figures of Statement XXXII and the proportionate figures of Statement XXXVI which were based upon them, take no account of any changes in the age distribution of mothers during the period under review. The tabulations from which these figures are derived, and which have been published in the annual reports of Vital Statistics, show order of birth by age of mother in five-year age groups and this detailed information enables us to make an adjustment for age..

Method of Adjustment.—The method of adjustment for differences in age distribution was to take, for a given year and a given age group, the distribution into first births, second births, etc., and to multiply these individual orders of birth for the given age group by a factor whose numerator was the percentage which the given age group formed of all married mothers for the standard period and whose denominator was the percentage which the given age group formed of all married mothers in the year for which adjustment was being made.

The standard age distribution adopted for this purpose was the average of the three years 1930-32 as shown in Statement XXXVIII. This period of three years practically centres on the date of the Census of 1931 and the Census population of Canada in 1931 has been adopted as the standard in certain other statements.

XXXVIII.—PERCENTAGE DISTRIBUTION OF MARRIED MOTHERS, BY AGE GROUP, CANADA, AVERAGED FOR 1930-1932

Age Group of Mother	Average P.C. 1930-32	Age Group of Mother	Average P.C. 1930-32
Under 20 years	5·38	35-39 years	14·50
20-24 "	24·94	40-44 "	5·82
25-29 "	27·63	45-49 "	0·63
30-34 "	21·00		

Age Data Used in Adjustment.—The age distribution of married mothers of live and stillborn children on which the adjustment of the figures of Statement XXXII were based are shown in Statement XXXIX.

XXXIX.—PERCENTAGE DISTRIBUTION OF MARRIED MOTHERS, BY AGE GROUP, CANADA, 1927-1936

Year	Age of Mother							
	All Ages	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over
1927	100·00	4·91	23·57	27·16	21·89	15·64	6·17	0·08
1928	100·00	5·14	24·05	27·07	21·62	15·32	6·14	0·06
1929	100·00	5·34	24·89	27·47	21·09	14·75	5·94	0·61
1930	100·00	5·39	25·13	27·26	21·03	14·67	5·80	0·62
1931	100·00	5·40	25·04	27·71	21·02	14·52	5·09	0·61
1932	100·00	5·34	24·65	27·92	20·95	14·59	5·89	0·66
1933	100·00	5·25	24·45	28·21	21·11	14·61	5·71	0·67
1934	100·00	5·13	24·29	25·29	21·48	14·36	5·83	0·63¹
1935	100·00	5·20	24·71	28·49	20·98	14·31	5·62	0·60₂
1936	100·00	5·14	25·08	28·49	21·08	14·05	5·58	0·59₁

It will be noted that the proportion of married mothers under 20 years moved upward from 4·91 in 1927 to 5·40 in 1931, that there was a retrogression in the proportion to 1934 when the figure was 5·13 p.c. and that in 1936 it was almost identical with this, i.e., 5·14.

The next age group, 20-24 years, commenced with 23·57 p.c. in 1927 and, increasing each year, reached 25·13 p.c. in 1930. The retrogression which followed lowered it to 24·29 p.c. in 1934 but a subsequent recovery made the figures for the final year, 1936, 25·08 p.c. The movement of the age group 25-29 years was more irregular, yet, in this group also, the final years were higher than the initial ones, 1935 and 1936 showing 28·49 p.c. of all married mothers in this group whereas 1927 and 1928 had 27·16 p.c. and 27·07 p.c., respectively.

PERCENTAGE DISTRIBUTION
BY
AGE GROUPS OF MARRIED MOTHERS
FOR YEARS
1927 AND 1936

PER CENT

1936

1927

AGE GROUPS

15-19   20-24   25-29   30-34   35-39   40-44   45-49
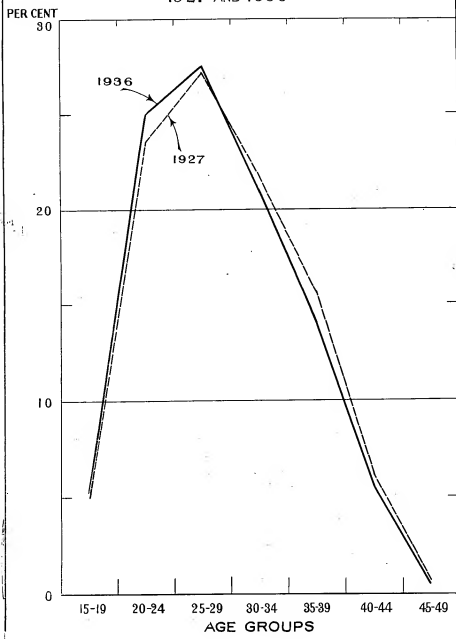
Chart 9

In all of the age groups over 30 years of age the movement was definitely downward, the decline being interrupted in those years where age groups under 30 years showed merely a temporary downward trend. The extent of the decline between the years about the beginning of the period and those about the end was generally greater for the higher age groups. Chart 9 gives a graphic description of the change in age distribution over the period.

Order of Birth Adjusted for Age of Mother.—Statement XL shows the order of birth of legitimate children after adjustment was made for differences in age distribution of mothers.

XL.—NUMERICAL DISTRIBUTION OF LEGITIMATE CHILDREN ACCORDING TO ORDER OF BIRTH, ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, CANADA, 1927-1936

Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
All orders	233,747	235,909	234,338	242,062	238,875	233,741	220,535	218,896	218,887	217,402
1st child	51,510	53,308	54,532	57,631	55,259	52,262	48,756	49,762	53,077	55,223
2nd "	41,827	42,467	43,060	45,247	45,554	45,121	42,338	41,384	40,852	41,025
3rd "	32,869	32,503	32,395	33,172	33,170	33,020	31,910	31,304	30,366	28,889
4th "	25,959	25,214	24,561	24,922	24,875	24,504	23,457	23,132	22,854	21,960
5th "	20,572	20,153	19,067	19,125	18,809	18,533	17,354	17,249	17,033	16,694
6th "	15,498	15,791	15,281	15,373	14,548	14,303	13,703	13,402	13,149	12,760
7th "	11,844	12,076	11,965	12,150	11,957	11,575	10,647	10,439	10,282	10,188
8th "	9,260	9,346	9,120	9,419	9,495	9,344	8,564	8,363	8,182	7,930
9th "	7,079	7,092	6,833	7,211	7,138	7,292	6,609	6,739	6,202	6,196
10th "	5,436	5,439	5,441	5,500	5,566	5,591	5,323	5,328	5,014	4,943
11th "	3,931	3,946	3,921	3,978	3,975	3,964	3,847	3,891	3,571	3,743
12th "	2,818	3,043	2,938	2,925	3,056	2,932	2,705	2,774	2,773	2,806
13th "	1,931	1,976	2,025	2,072	2,003	2,039	1,941	1,936	1,906	1,906
14th "	1,372	1,328	1,274	1,372	1,377	1,372	1,196	1,283	1,240	1,271
15th "	839	821	860	804	848	859	806	846	806	903
16th "	560	488	508	515	492	474	483	483	464	475
17th "	306	297	278	301	272	300	275	248	302	287
18th "	163	193	166	161	175	141	159	168	147	135
19th "	82	91	103	83	84	91	65	78	78	84
20th and over	95	113	84	101	102	94	97	106	93	82

The percentage distribution of order of birth after adjustment is shown in Statement XLI. As compared with Statement XXXVI, the figures of Statement XLI reduced the tendency which has been noted of showing in the later years higher proportions of the lower orders of birth and lower proportions of the higher orders. However, the tendency is still apparent, modified, of course, by the reduction in first and second births which resulted from the decline in marriages during the depression years.

XLI.—PERCENTAGE DISTRIBUTION OF LEGITIMATE CHILDREN ACCORDING TO ORDER OF BIRTH, ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, CANADA, 1927-1936

Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
All orders	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
1st child	22·04	22·60	23·27	23·81	23·15	22·36	22·10	22·73	24·25	25·40
2nd "	17·89	18·00	18·38	18·69	19·06	19·30	19·19	18·91	18·66	18·87
3rd "	14·06	13·89	13·82	13·70	13·89	14·13	14·47	14·30	13·87	13·29
4th "	11·10	10·69	10·48	10·30	10·41	10·48	10·63	10·57	10·49	10·10
5th "	8·78	8·56	8·14	7·90	7·90	7·93	7·87	7·88	7·80	7·68
6th "	6·63	6·69	6·52	6·35	6·09	6·12	6·21	6·12	6·01	5·87
7th "	5·07	5·12	5·11	5·02	5·01	4·95	4·83	4·77	4·70	4·69
8th "	3·96	3·96	3·89	3·89	3·97	4·00	3·88	3·83	3·74	3·65
9th "	3·03	3·01	2·94	2·98	2·99	3·12	3·04	3·11	2·83	2·85
10th "	2·33	2·31	2·32	2·27	2·33	2·39	2·41	2·43	2·29	2·27
11th "	1·68	1·67	1·67	1·64	1·66	1·70	1·74	1·74	1·63	1·72
12th "	1·20	1·29	1·25	1·21	1·28	1·25	1·25	1·27	1·27	1·29
13th "	0·83	0·84	0·86	0·86	0·84	0·87	0·88	0·88	0·87	0·88
14th "	0·54	0·52	0·54	0·57	0·58	0·58	0·54	0·59	0·57	0·58
15th "	0·36	0·35	0·37	0·33	0·36	0·37	0·37	0·39	0·37	0·37
16th and over	0·49	0·50	0·49	0·48	0·47	0·47	0·49	0·49	0·50	0·49

The effect which adjustment for differences in age distribution of mothers over the period 1927-36 had on figures shown in Statement XLI indicates that, in general, the later years showed larger proportions of younger mothers who thus had completed less of their total period of fertility at the time when the birth of a child brought them into the picture presented by these statements (see, also, Chart 10).

ORDER OF BIRTH* OF
LEGITIMATE CHILDREN BORN IN CANADA
1927-36

P.C.
or ALL BIRTHS

FIRST CHILD

25.0
24.0
23.0
22.0
21.0

HIGHER ORDER THAN 1ST CHILD

78.0
77.0
76.0
75.0
74.0

HIGHER ORDER THAN 2ND CHILD

61.0
60.0
59.0
58.0
57.0
56.0
55.0

HIGHER ORDER THAN 3RD CHILD

46.0
45.0
44.0
43.0
42.0

1927 '28   '29 1930   '31   '32   '33   '34 1935 '36

YEARS
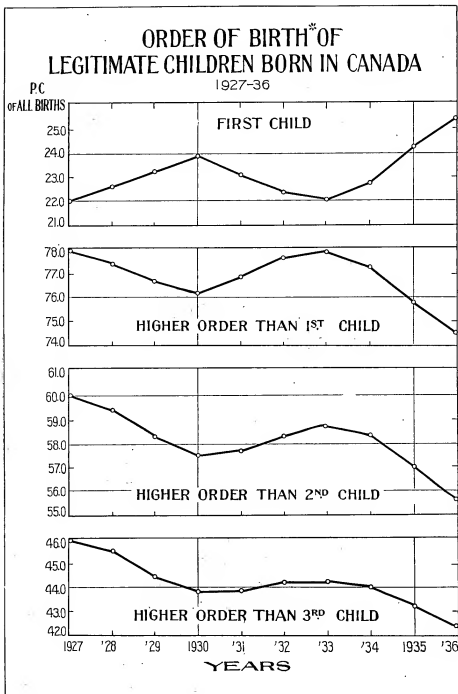
* Adjusted for differences in age distribution of mothers.

Chart 10

TREND IN ACCUMULATED ORDERS OF BIRTH

Total at and over Each Order.—Statement XLII is based on the figures of Statement XLI and shows, after adjustment for age, the proportion of mothers of each year having more than one child (including the present birth), more than two children, more than three, etc. The statement shows that the proportion of mothers having more than one child varied between 77·95 p.c. in 1927 and 74·60 p.c. in 1936, the proportion having more than two children between 60·06 p.c. in 1927 and 55·73 p.c. in 1936, having more than three children between 46·00 p.c. in 1927 and 42·44 p.c. in 1936, and having more than four children between 34·90 p.c. in 1927 and 32·34 p.c. in 1936. Thus, in the final year of the period, less than three-quarters of the mothers of the year were having a birth of higher order than the first and less than one-third were having a birth of higher order than the fourth.

XLII.—PERCENTAGES OF MARRIED MOTHERS HAVING MORE THAN A GIVEN NUMBER OF CHILDREN, ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, CANADA, 1927-1936

Number of Children Born	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
One child or more............	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
More than 1 child..............	77·95	77·41	76·73	76·19	76·86	77·64	77·59	77·28	75·76	74·60
" " 2 children............	60·06	59·41	58·35	57·50	57·78	58·34	58·70	58·37	57·09	55·73
" " 3 "	46·00	45·51	44·53	43·80	43·89	44·21	44·23	44·07	43·21	42·44
" " 4 "	34·90	34·82	34·05	33·50	33·48	33·73	33·60	33·50	32·72	32·34
" " 5 "	26·12	26·26	25·91	25·60	25·55	25·80	25·64	25·62	24·92	24·66
" " 6 "	19·49	19·57	19·39	19·25	19·49	19·68	19·43	19·50	18·91	18·79
" " 7 "	14·42	14·45	14·28	14·23	14·48	14·73	14·60	14·73	14·21	14·10
" " 8 "	10·46	10·49	10·39	10·34	10·51	10·73	10·72	10·90	10·47	10·45
" " 9 "	7·43	7·48	7·45	7·36	7·52	7·61	7·68	7·79	7·64	7·60
" " 10 "	5·10	5·17	5·13	5·09	5·19	5·26	5·27	5·36	5·35	5·33
" " 11 "	3·42	3·50	3·46	3·45	3·53	3·56	3·53	3·62	3·55	3·61
" " 12 "	2·22	2·21	2·26	2·24	2·25	2·30	2·28	2·35	2·31	2·32
" " 13 "	1·39	1·37	1·40	1·38	1·41	1·43	1·40	1·47	1·44	1·44
" " 14 "	0·85	0·85	0·86	0·81	0·83	0·84	0·86	0·88	0·87	0·86
" " 15 "	0·49	0·50	0·49	0·48	0·47	0·47	0·49	0·49	0·50	0·49

TREND IN AGE DISTRIBUTION OF MARRIED MOTHERS, REGISTRATION AREA, 1921-1936

The fact observed in Statement XXXIX regarding the age distribution of married mothers suggests such a statement over the whole period 1921-36. This can, however, be given only for the eight provinces composing the Registration Area and which entered the National System at its inception. The proportions in question are shown in Statement XLIII. As this statement was not constructed for the same purpose as Statement XXXIX, viz., to apply to an order of birth statement for purposes of adjustment, it has been confined to mothers of live-born children, but this fact has little importance because of the small number of stillbirths as compared with live births.

XLIII.—PERCENTAGE DISTRIBUTION OF MARRIED MOTHERS[1], BY AGE GROUP, REGISTRATION AREA, 1921-1936

Year	Age of Mother						
	All Ages	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over
1921	100·00	5·55	24·79	27·79	21·57	14·64	5·07	0·59
1922	100·00	5·63	24·21	27·89	21·69	14·71	5·35	0·52
1923	100·00	5·25	23·02	27·90	21·96	15·01	5·41	0·55
1924	100·00	5·41	23·97	27·63	22·05	14·84	5·57	0·53
1925	100·00	5·67	23·77	27·52	21·71	15·13	5·64	0·53
1926	100·00	5·57	24·04	27·15	21·96	14·96	5·74	0·58
1927	100·00	5·85	24·58	26·77	21·63	14·88	5·57	0·62
1928	100·00	6·08	25·25	26·61	21·31	14·60	5·59	0·57
1929	100·00	6·44	26·23	26·94	20·56	13·96	5·32	0·55
1930	100·00	6·47	26·59	26·92	20·36	13·80	5·35	0·51
1931	100·00	6·58	26·83	27·18	20·16	13·63	5·00	0·54
1932	100·00	6·61	26·66	27·38	19·92	13·60	5·26	0·57
1933	100·00	6·58	26·79	27·65	20·01	13·34	5·06	0·56
1934	100·00	6·51	27·00	27·82	20·15	12·87	5·08	0·56
1935	100·00	6·53	27·55	28·09	19·59	12·80	4·88	0·55
1936	100·00	6·43	27·87	28·21	19·67	12·57	4·79	0·47

[1] Live births only.

It will be observed that the age groups under 30 show higher proportions of mothers at the end of the period than at the beginning, while the contrary is true for the age groups over 30. The trend is not uninterrupted; there are certain irregularities. It is evident that the decline in marriages during the depression would reduce the proportion of first births, thereby affecting unfavourably the proportion of younger mothers, but the effect of other factors prevents this from standing out as clearly as it might.

In general, the most pronounced trend in the ages of married mothers is observed in the age groups 20-24 and 35-39. The former group provided 24·79 p.c. of married mothers in 1921 and, with only one slight interruption in 1924, declined to a low of 23·77 p.c. in 1925. This decline is presumably related to a downward trend in the number of marriages which continued uninterruptedly over the period 1921-25, with the exception of the year 1923. Commencing with 1926, the proportion moved upward year by year to 1931. The year 1932 showed a slight retrogression but the upward movement recommenced in 1933 and continued to 1936, the last year shown in the statement. Between the first and last year there was an increase in the proportion of more than 12 p.c. The age group 35-39 showed in the first year, 1921, a proportion of 14·64 p.c. of all married mothers. This proportion increased year by year up to 1925, with the exception of 1924, which showed a set-back from the previous year. Commencing with 1926, a decline set in which continued without interruption during the remainder of the period under review. Between the first and last year, this age group showed a reduction of 14 p.c. in its proportion of all married mothers. It will be noted that the upward movement between 1921-25, even to the extent of its one interruption, corresponded to the downward movement of the age group 20-24 but that it differed from that age group in showing no interruption to the trend between 1925 and 1936. It will easily be understood that the decline in marriages during the depression, through its influence on the proportion of first births, would produce a more direct result on the age group 20-24 than on the age group 35-39 as its influence on the older age groups would be dispersed.

The net movement of the other age groups over the period is proportionately less and, as might be expected the trend shows more irregularities.

TYPE OF MOTHER AS INDICATED BY ORDER OF BIRTH

Average Age of Married Mothers in the Different Orders of Birth.—Statement XLIV shows the average age of married mothers as they fall in the different orders of birth for the years 1927–36.

XLIV.—AVERAGE AGE OF MARRIED MOTHERS ACCORDING TO ORDER OF BIRTH OF CHILDREN, CANADA, 1927–1936

Order of Birth	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
	years	years	years	years	years	years	years	years	years	years
1st child	29·45	29·30	29·30	29·30	29·30	29·30	29·30	29·40	29·45	29·55
2nd "	31·49	31·45	31·35	31·35	31·35	31·25	31·35	31·45	31·55	31·55
3rd "	33·40	33·40	33·35	33·35	33·20	33·15	33·15	33·15	33·25	33·40
4th "	34·90	34·95	34·90	34·95	34·85	34·80	34·80	34·80	34·80	34·85
5th "	36·30	36·40	36·40	36·40	36·35	36·40	36·25	36·15	36·20	36·20
6th "	37·55	37·55	37·60	37·70	37·65	37·70	37·60	37·65	37·60	37·50
7th "	38·80	38·80	38·75	38·85	38·85	38·90	38·95	38·85	39·00	38·90
8th "	40·05	40·00	39·95	40·00	40·00	40·00	40·10	40·00	40·15	40·10
9th "	41·00	41·15	41·08	41·25	41·10	41·10	41·10	41·10	41·15	41·25
10th "	42·20	42·20	42·13	42·20	42·15	42·20	42·15	42·15	42·30	42·25
11th "	43·15	43·15	43·00	43·05	43·05	43·30	43·15	43·00	43·15	43·20
12th "	43·95	43·85	43·90	43·90	43·95	44·03	44·05	43·95	44·05	43·90
13th "	44·55	44·80	44·50	44·75	44·45	44·65	44·65	44·65	44·70	44·65
14th "	45·35	45·15	45·25	45·25	45·30	45·40	45·40	45·40	45·45	45·40
15th "	45·90	45·80	45·75	45·75	45·90	45·85	45·95	45·70	45·83	45·80
16th and over	46·70	46·60	46·35	46·55	46·65	46·65	46·75	46·80	46·65	46·90

We observe an exceptional degree of constancy over the period in the average age of mother for any given order of birth. Consequently, the average age for each order over the ten-year period would seem to be insignificant. These figures are shown in Statement XLV.

XLV.—AVERAGE AGE OF MARRIED MOTHERS, BY ORDER OF BIRTH, CANADA, 1927–1936

Order of Birth	Average Age of Mother, 1927–36	Order of Birth	Average Age of Mother, 1927–36
1st child	29·37	9th child	41·13
2nd "	31·41	10th "	42·19
3rd "	33·28	11th "	43·12
4th "	34·86	12th "	43·95
5th "	36·30	13th "	44·64
6th "	37·61	14th "	45·35
7th "	38·87	15th "	45·82
8th "	40·04	16th and over	46·68

Beginning with an average age of 29·37 for the first order, 31·41 (or 2·04 years older) for the second order and so on, we observe that there is a progressive lessening of the interval between births as we ascend the scale of orders. This fact is illustrated in Chart 11 which shows the age at each order.

77601—3—6

AVERAGE AGE OF MARRIED MOTHERS
IN
EACH ORDER OF BIRTH
OVER
THE 10-YEAR PERIOD
1927-36

YEARS
OF AGE

ORDER OF BIRTH
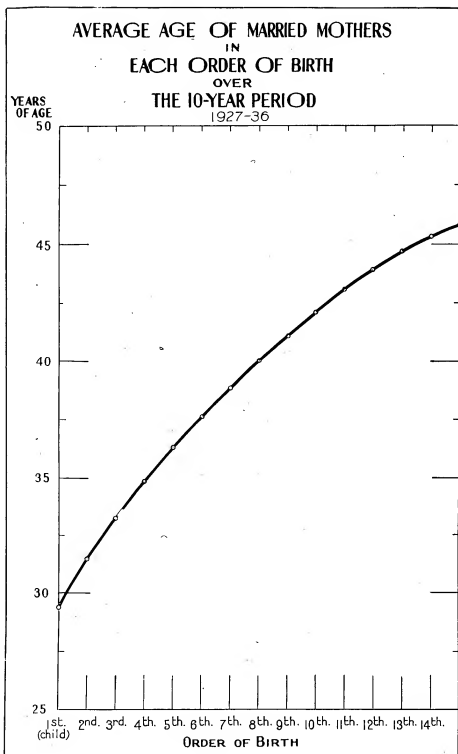
Chart 11

This could happen in several ways, of course. Although the influence of twin and multiple births might be expected to be very influential, the number of such births is so small that this could hardly be a major cause of the decreasing interval of age for each order. The same may be said of the influence of stillbirths. One conclusion must be avoided, viz., that in any one family the interval is decreasing with every additional child. There is no doubt that the lessening interval is a matter of the larger family having a smaller interval of time between births than the smaller family—in other words, the distinction is between different types of families, not between births in the same family. In whatever way we look at it, it has an important bearing upon fertility; for if the same interval obtained between each order as between the first and second, viz., 2·04 years, it is seen that mothers of the fifteenth child would be 58 years old instead of 45·52, i.e., there would be no fifteenth child. This leads us to what may be the most important element entering into this decreasing interval. Observe that the average age at the birth of the first child is 29·37 years—a high age. This is probably because the first order is weighted strongly by mothers who will have only one child as a result of late marriage; this type of mother is eliminated in the second order which in turn contains the type of mother who will have only two children as the result of marrying late but not quite so late. This sort of elimination progresses through the successive orders. In other words, it is probable that the lessening interval reflects strongly differential age at marriage and the differential number of births resulting therefrom. If this explanation is as important as it seems to be it gives additional value to Statement XXXV already given. This statement shows for the same period of years (1927-36) the average age of females at marriage.

The age of 29 for the first order appears high considering that the average age at marriage—similarly constant over the ten-year period—is 24. This would seem to be an excellent illustration of the importance of deviations from an average as compared with the average itself. It is obvious that while the age of the first order is 29, the mothers giving birth to a large number of children were much younger than this at the time of giving their first birth, i.e., all the large families and even the moderate size families come from mothers younger than the average.

Average Order of Birth in Different Age Groups of Mothers.—Since the average thus conceals the rule it is necessary to show the converse side of the situation, viz., the average order of birth in the different age groups of mothers. This is shown in Statement XLVI.

XLVI.—AVERAGE ORDER OF BIRTH TO MARRIED MOTHERS, BY AGE GROUP, CANADA, 1927-1936

Age of Mother	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Under 20	1·31	1·29	1·29	1·29	1·30	1·31	1·31	1·31	1·29	1·29
20-24	2·09	2·05	2·01	1·98	2·01	2·03	2·05	2·04	1·99	1·05
25-29	3·39	3·36	3·29	3·22	3·20	3·23	3·23	3·21	3·15	3·09
30-34	4·91	4·92	4·88	4·85	4·89	4·89	4·88	4·86	4·73	4·67
35-39	6·74	6·73	6·71	6·72	6·74	6·83	6·82	6·86	6·77	6·75
40-44	8·66	8·73	8·65	8·65	8·74	8·76	8·78	8·78	8·85	8·79
45-49	9·98	10·03	9·84	9·88	9·96	10·29	10·26	10·29	10·40	10·45

In Statement XLVI a trend of a certain kind is noticeable in the average order of births. It exemplifies a point shown later in Chart 12 (page 80), viz., that the ages of 25-29 and 30-34 show a definite decline in the ten years while the other ages show a certain degree of constancy. The averages show that the orders of birth most representative of these ages centre around the fourth and fifth and it will be seen in Chart 12 that the decline in births is conspicuously large in these orders. Statement XLVI, therefore, would seem to show that the decline in births is in some way connected with certain age groups and thus in time brings up the possibility that the decline in births is connected with certain types of mothers whether these types are generated by the individuality of the person or by the period of time through which these persons have passed.

. This trend of decline in average order must be considered in conjunction with the fact that the number of births in a given year is also declining, *i.e.*, the number of mothers appearing in the birth statistics of the year is declining. Thus, 1,000 mothers averaging 3·39 births would represent 3,390 total births. If the 1,000 were reduced to, say, 900 and the orders were reduced to 3·09, the total births would be reduced to 2,781; in other words, a double process is involved in this decline in the average order. According to such a process the population represented in families of this size would rapidly decline.

Total Potential Number of Children Represented by Disappearing Types of Mothers.—The double process is illustrated in Statement XLVII which shows the number of legitimate births and the average order of births in each year.

XLVII.—TOTAL AND AVERAGE NUMBER OF CHILDREN BORN TO FAMILIES REPRESENTED BY LEGITIMATE BIRTHS, CANADA, 1927-1936

Year	Families Represented by Legitimate Births	Children Born to Families Represented by Legitimate Births		Year	Families Represented by Legitimate Births	Children Born to Families Represented by Legitimate Births	
		Total	Average			Total	Average
1927	234,193	985,151	4·21	1932	233,855	953,547	4·08
1928	236,347	984,062	4·16	1933	220,709	899,649	4·08
1929	234,029	954,046	4·07	1934	219,029	892,800	4·08
1930	242,289	974,121	4·02	1935	218,919	871,421	3·98
1931	238,981	961,799	4·02	1936	217,524	852,770	3·92

Taking the end years, 1927 and 1936, it is seen that the number of births declined by 7·1 p.c. and the average order by 6·9 p.c. Taking now the total number of children represented by these two figures, as found in the third column of this statement, it is seen that it declined by 13·4 p.c. In other words, the 10,669 mother types that appear in 1927 and failed to appear in 1936 represented 132,381 children. If there is a real trend in the disappearance of mothers of this type, it is obvious that this disappearance will mean a greater difference in the reproduction rate than is represented in calculations already made in these rates. Again, it is possible that such a difference will be only temporary because, if it is only a certain type of mother that is disappearing, *viz.*, the one with the large family (5-10 children), then once she disappears completely a stationary or upward trend would possibly result.

Misleading Features of the Mean Ages and Orders.—It would seem that the ordinary average (the mean) is a rather unsatisfactory statistic as a means of describing features of the orders of birth. Statements XLIV and XLVI, the one showing the average age of mother for each order of birth and the other the average order of birth at each age group of mother, are cases in point. It is baffling to find the averages in each statement apparently constant from year to year, but this apparent constancy is misleading since a very small variation is significant. Still more baffling is it to find that the average age of mother of the first order of birth is 29 while the average order of birth of a mother of 29 is about 3. If we put these averages as probabilities, the point will be clearer. The probability is that the mother of the first child is 29 years of age whereas if we find a mother giving birth at the age of 29 the probability is that this is her third child. In other words, the probabilities from the point of view of the child and from the point of view of the mother are far apart and it is difficult to see what this means. Indeed, it would seem to suggest the advisability of questioning these averages. Now, there are methods of examining the validity of averages and in this case the method will be simple. Taking the average (mean) age of the first birth, *viz.*, 29·4, it has a standard deviation of 2·3 years which would mean that in the case of normal distribution it would be easily possible that a first birth would occur to mothers at ages all the way from 23 to 36; but it is decidedly not a normal distribution because the median age at first birth is found to be 24·1, *i.e.*, as many mothers of first births are under as over 24·1. There is a distance of 5·3 years between the mean and the median and a much greater distance between the mean and the spot of most common occurrence of first births. This makes the average of 29 practically meaningless except as a measure of the manner in which a few first births at later and uncommon ages raise the mean age to a point of absurdity.

Modal Orders and Ages.—But, it is necessary to find some average by means of which the behaviour of the orders of birth may be examined. There is an average which is never misleading provided it can be found but it is not always possible to do so. It so happens that in the order of births this average actually does exist and stands out quite clearly. Statement XLIX will show that the common occurrence of the different orders of birth falls definitely into age groups. Thus, 43 p.c. of the first and second orders fall in the age group 20-24 and this varies very little throughout the decade 1927-36. Similarly, 37 p.c. of the third to the fifth orders fall in the age group 25-29, 38 p.c. of the sixth to the eighth orders fall in the group 30-34, 45 p.c. of the ninth to the thirteenth orders fall in the group 35-39 and 53 p.c. of the orders fourteen and over fall in the group 40-44. While these modes have not been obtained by refined methods, the fact that such a large proportion of the orders occur within them and occur so constantly justifies us in designating them as the *age of common occurrence* of the different orders. The number of each order which occurs outside those ages may be described as "unusual" or occurring at unusual ages. Thus, a very useful concept is suggested in connection with orders of birth—the occurrence of the usual as contrasted with that of the unusual. Statement XLVIII, then, shows the number of births occurring during the decade 1927-36 at usual ages and at unusual ages with the index of each set using 1927 as a base. Statement XLIX shows the percentage than the usual form of the total number of births in the stated orders. We are enabled, thus, to examine the behaviour of the usual and of the unusual throughout the decade.

XLVIII.—BIRTHS OCCURRING AT USUAL AND UNUSUAL AGES WITH THE INDEX OF EACH SET USING 1927 AS BASE, BY SINGLE YEARS, CANADA, 1927-1936

Year	Births Orders Modal in Age Group					Births Orders Other Than Modal in Age Group				
	1st and 2nd Orders in Age Group 20-24	3rd-5th Orders in Age Group 25-29	6th-8th Orders in Age Group 30-34	9th-13th Orders in Age Group 35-39	14th Order and over in Age Group 40-44	Orders Other Than 1st and 2nd in Age Group 20-24	Orders Other Than 3rd-5th in Age Group 25-29	Orders Other Than 6th-8th in Age Group 30-34	Orders Other Than 9th-13th in Age Group 35-39	Orders Other Than 14th and over in Age Group 40-44
NUMBER										
1927	38,794	29,496	14,242	10,090	1,852	51,745	50,231	23,745	12,350	1,027
1928	40,697	28,804	14,409	9,934	1,755	53,257	49,564	23,769	12,525	1,603
1929	42,281	28,149	13,673	9,425	1,709	55,056	47,948	22,909	11,873	1,546
1930	44,999	28,393	14,118	9,790	1,775	58,008	48,750	22,852	12,019	1,585
1931	43,614	28,853	13,876	9,601	1,744	57,582	48,148	22,041	11,962	1,550
1932	41,752	29,036	13,384	9,700	1,737	55,305	47,157	21,946	12,144	1,631
1933	38,547	28,142	12,653	9,331	1,599	52,123	45,154	20,442	11,243	1,475
1934	37,993	27,021	12,584	9,324	1,713	52,466	44,595	19,939	11,304	1,487
1935	39,530	27,160	11,976	8,980	1,660	54,445	43,686	19,580	10,488	1,417
1936	40,760	25,679	11,741	8,681	1,563	55,991	42,346	18,943	10,371	1,449
INDEX USING 1927 AS BASE										
1927	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1928	104·9	97·7	101·2	98·5	96·4	102·9	98·7	100·1	101·3	95·5
1929	109·0	95·4	95·0	93·4	94·5	106·4	95·5	96·5	95·0	95·0
1930	116·0	96·3	99·1	91·0	95·8	112·1	97·1	95·2	97·2	97·4
1931	112·4	97·9	97·4	95·2	94·2	111·3	95·9	92·5	96·7	95·3
1932	107·6	98·4	94·0	96·1	93·8	107·0	93·9	92·4	98·2	100·2
1933	99·4	95·4	88·8	92·5	86·3	100·7	89·9	86·1	90·9	90·7
1934	97·9	93·6	88·4	92·4	92·5	101·4	88·8	84·0	91·4	91·4
1935	101·9	92·1	84·1	89·0	89·6	105·2	87·0	82·5	84·8	87·1
1936	105·1	87·1	82·4	86·0	84·4	108·2	84·3	79·8	83·6	89·1

XLIX.—PERCENTAGES WHICH BIRTHS AT USUAL AGES FORM OF THE TOTAL NUMBER OF BIRTHS OF STATED ORDERS, BY SINGLE YEARS, CANADA, 1927-1936

Year	1st and 2nd Orders in Age Group 20-24	3rd-5th Orders in Age Group 25-29	6th-8th Orders in Age Group 30-34	9th-13th Orders in Age Group 35-39	14th Order and over in Age Group 40-44
1927	42·8	37·0	37·5	44·9	53·2
1928	43·3	36·8	37·7	44·2	52·7
1929	43·4	37·0	37·4	44·3	53·4
1930	43·7	36·8	38·2	44·9	52·8
1931	43·1	37·5	38·6	44·5	52·9
1932	43·0	38·1	37·9	44·4	51·9
1933	42·5	38·4	38·2	45·4	52·0
1934	42·0	38·2	38·7	45·2	53·5
1935	42·1	38·3	38·0	46·1	53·9
1936	42·1	37·7	38·3	45·6	51·9

The most important of the above two statements seems to be the second showing the percentages which the births of each set of orders falling in usual age groups form the total number of births in these orders. The high degree of constancy gives these percentages at least an appearance of reliability. However, a certain variability does exist and it is easy to see that this variability has a main trend. The behaviour of the first and second orders is different from that of the subsequent orders. The time trend that exists seems to be partly obscured by increase and decrease in the number of births falling in each order from year to year during the decade. Accordingly, the percentages were examined to ascertain whether there was any system in the variability from year to year and how far this interfered with the trend. If we take the percentages the usual forms of all births as X_1, the first ten natural numbers describing the yearly trend as X_2 and the index of the number of the different births falling at usual ages, year by year, as X_3 and use the equation $X_1 = A + BX_2 + CX_3$ for each set of orders, we obtain very interesting results which are summarized as follows:—

Order of Birth	Correlation of P.C. Usual with Yearly Trend and Index of Usual	Yearly Increase of P.C. Usual	Order of Birth	Correlation of P.C. Usual with Trend and Yearly Index of Usual	Yearly Increase of P.C. Usual
1st and 2nd orders	·96	0·002	9th-13th orders	·76	−0·028
3rd-5th "	·93	0·143	14th order and over	·52	0·169
6th-8th "	·86	0·118			

¹ Independent of fluctuations caused by casual decline or increase in the number of births occurring in the order.

Concepts Suggested by the Modes.—A fair description of the findings would seem to be as follows:—

(1) In the case of all orders, except one set, an increase in the number of births throughout the decade led to a larger proportion of each order being found at usual ages (of mother) while a decrease led to a smaller proportion being found, i.e., it was the usual ages that benefitted or suffered most.

(2) When (1) is allowed for, there was an upward trend throughout the decade in the proportion of births of the different orders falling at usual ages. In other words, there has been a gradual elimination of the unusual—except in the first and second orders of births.

These are concepts that should be quite easy to understand and these findings may have an exceedingly important bearing upon future birth rates. If the declining trend of the total number of births thus consists, partly at least, in the weeding out of the unusual, is it not probable that a point of stability will be reached when the unusual is eliminated?

Again, the first and second births (probably particularly the first births) behave quite differently as to time trend for the other orders. The tendency for these orders to occur at

unusual ages seems to be growing, after allowing for the other tendency, *viz.*, that as they increase and decrease greater or less proportions of them fall at usual ages. It was observed earlier in the chapter that first and second births were closely associated with current marriage rates and the latter in turn with economic conditions. This, of course, would suggest an explanation of the behaviour of first and second births, but there is another association that is very important. The orders under observation refer to legitimate births. By far the greater proportion of illegitimate births are probably of the first order and nearly all in the first and second orders. Illegitimate births form nearly 10 p.c. of the births of the first order. Thus, the figures of the first and second orders representing only legitimate births are very incomplete as representing the total number of births in these orders. Illegitimacy seems to be sensitive to economic conditions and to occur largely at the ages usual for first and second births. If illegitimate births were included there is little doubt that first and second births would be found to behave similarly to later orders.

Thus, a common factor in the behaviour of the birth rate would seem to be established, *viz.*, a line trend eliminating the unusual. It is unusual for a mother 15-19 to be giving birth to her fourth child or a mother 40-44 to her first child and this is becoming more unusual. Conversely, it is becoming more usual for the third child to have a mother in the age group 25-29, for the fourth child to have a mother 30-34, for the sixth child a mother 35-39 and for the fourteenth child to have a mother 45-49. If mothers 45-49 drop out of the picture, it is likely that the fourteenth child will also.

GENERAL SUMMARY OF ORDER OF BIRTH

Statements L and LI and Chart 12 are by way of summary and further elucidation of comments and data already presented in this chapter. Going back to Statement XXXII, we see in a general way that there is an upward trend from 1927-36 in the proportion falling in the first order, meaning, of course, that there is a downward trend in one or more of the higher orders. Similarly, but with more interruption, we see an upward trend in the second order. The order at which the upward trend ceases and the downward begins cannot be easily detected from the figures as they stand because of the interruptions mentioned; consequently, it was necessary to resort to some kind of measurement, as the matter is important. The trend of each order was measured by the line of best fit to the percentages of each year. So long as the slope of this line was positive the trend was upward. Thus, considering the unadjusted figures in the first order of birth, our line tells us that the proportion falling in the first order increases 0·262 per year on an average; in the second order, 0·153 per year and so on, the average increase per year becoming smaller until we reach the fourth order when the trend begins to be downward, decreasing 0·047 per year. This decrease becomes greater until we reach the fifth order which shows 0·102 decrease. As we ascend the orders from this point, the decreases become less and less until we reach the fourteenth order when the proportion becomes stationary.

The adjusted figures show slightly less increase in the number falling in the first and second orders of birth. The first decrease, 0·013, appears in the third order of birth and the decrease becomes greater until we reach the fifth, which also showed the greatest decrease in the unadjusted figures. From this point, 0·111 in the fifth order, the decreases gradually diminish until the tenth order and the remaining orders of birth show slight increases. The above results are shown in Statement L and Chart 12.

L.—AVERAGE ANNUAL INCREASE OR DECLINE IN PROPORTION FALLING IN EACH ORDER OF BIRTH, CANADA, 1927-1936

	Increase or Decline in			Increase or Decline in	
Order of Birth	Unadjusted Orders of Birth	Adjusted Orders of Birth	Order of Birth	Unadjusted Orders of Birth	Adjusted Orders of Birth
1st order of birth..............	+0·262	+0·201	9th order of birth..........	−0·029	−0·010
2nd " "	+0·153	+0·109	10th " "	−0·014	+0·002
3rd " "	+0·068	−0·013	11th " "	−0·004	+0·011
4th " "	−0·047	−0·054	12th " "	−0·004	+0·007
5th " "	−0·102	−0·111	13th " "	−0·005	+0·005
6th " "	−0·097	−0·065	14th " "	0·000	+0·005
7th " "	−0·070	−0·053	15th " "	−0·001	+0·003
8th " "	−0·049	−0·028			

AVERAGE *ANNUAL INCREASE
OR
DECLINE IN PROPORTION
OF
TOTAL BIRTHS FALLING IN EACH
ORDER OF BIRTH

1927–1936.

300 —

200

adjusted

100

unadjusted

0

100 —

200

1st.   2nd. 3rd. 4th. 5th. 6th. 7th. 8th. 9th. 10th. 11th. 12th. 13th. 14th.
(child)
ORDER OF BIRTH
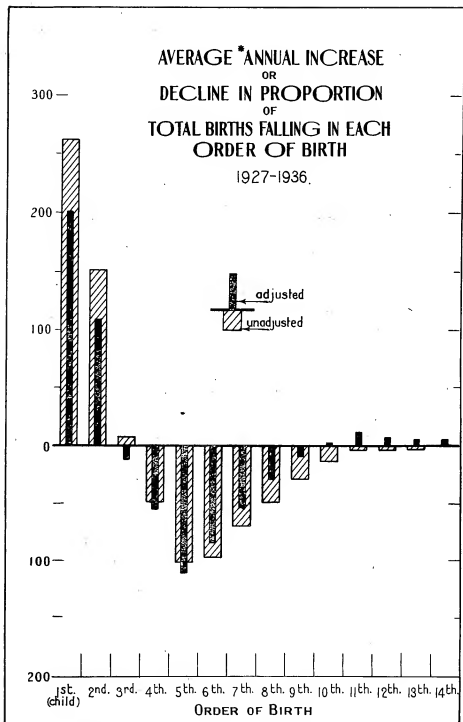
* Average = the slope of the line of best fit for each order during the decade.

Chart 12

In general, we see that the first two orders of birth show increases over the ten-year period, the orders from the third to the ninth register decreases and the orders from the tenth on are fairly stationary. Statement LI—the distribution for Canada and the provinces—shows that this was no regional tendency but the general trend over the nine provinces.

LI.—PERCENTAGE OF TOTAL BIRTHS OF (A) LOWER ORDER THAN THIRD, (B) THIRD TO NINTH ORDER AND OVER, AND (C) TENTH ORDER AND OVER, CANADA AND PROVINCES, 1927, 1930, 1933 AND 1936

Province	Percentage of Total Births of											
	Lower Order than Third				Third to Ninth Order				Tenth Order and Over			
	1927	1930	1933	1936	1927	1930	1933	1936	1927	1930	1933	1936
Canada	38·66	42·51	41·08	44·48	53·45	50·09	51·25	48·17	7·89	7·40	7·67	7·36
Prince Edward Island	36·90	37·97	38·84	39·56	56·66	55·87	53·46	52·94	6·44	6·16	7·70	7·50
Nova Scotia	36·39	39·65	41·37	44·05	56·63	53·55	51·95	50·11	6·98	6·80	6·68	5·85
New Brunswick	33·16	35·25	34·59	38·26	58·01	55·16	54·86	51·63	8·83	9·60	10·55	10·11
Quebec	30·19	33·28	30·86	33·93	56·35	54·04	56·16	53·42	13·46	12·68	12·98	12·65
Ontario	46·8	50·76	49·82	53·42	49·40	45·91	46·53	43·13	3·73	3·33	3·65	3·45
Manitoba	40·84	46·09	46·61	49·92	53·59	48·35	47·99	45·30	5·57	5·56	5·40	4·79
Saskatchewan	37·69	42·77	41·57	44·56	55·82	50·97	52·24	49·53	6·49	6·27	6·19	5·91
Alberta	43·06	47·56	46·25	49·26	52·47	48·26	49·87	46·87	4·47	4·18	3·88	3·87
British Columbia	53·73	57·00	55·54	61·49	44·63	41·01	42·33	36·50	1·64	1·99	2·11	2·01

Thus the orders of birth which suffered in the period from 1927-36 were the fourth to the tenth orders. The very large family (10 and upwards) did not suffer. The family which would be large for English speaking people, city people, etc., did suffer.

CHAPTER IV

GROSS AND NET REPRODUCTION RATES

Introduction.—The interest taken in the downward trend of birth rates during the post-War period which has formed a noteworthy feature of the vital statistics of so many countries has led to the application of methods of measuring the decline in fertility. These are the gross and net reproduction rates.

Reproduction rates are often used as a stock-taking of the rather complicated issues of statistics of birth. These calculations are introduced to show the number of female children produced by each female in the population throughout the child-bearing period, assuming the birth and death rates of any given year. As the latter rates change from year to year it is obvious that the reproduction rates as calculated are subject to the same changes and, consequently, do not present a permanent picture such as would be presented if they were calculated on the data of a generation instead of the data of a single year. Nevertheless they are indicative, especially when a time series of such reproduction rates can be calculated. In the present chapter a series of gross reproduction rates are calculated for 1921 and 1931 in the case of the Registration Area and for 1921, 1926, 1931 and 1936 in the case of the Prairie Provinces. Obviously, the rates can be calculated only for the years when data for the total population are available, i.e., census years. In the absence of data for calculating net reproduction rates, gross rates are valuable as having a fairly constant degree of approximation to the net rates, i.e., subject only to as much variation in death rates as is seen by comparison of various life tables.

Gross Reproduction Rates.—The gross reproduction rates of Statement LII show in concise form the combined effect on the average fertility of all women of postponement of or abstention from marriage and of differences in fertility within marriage. The rate is subject to the criticism that it is based on the replacement of a woman by her offspring of the same sex. For example, it is affected, though in comparatively slight degree, by differences in the masculinity rate of births. In spite of this fault, however, it presents a very significant measure of fertility and, though of comparatively recent development, is generally recognized as a very valuable method of summarizing specific fertility rates.

From the specific fertility rates of Statement XV for the average of 1921-22 and of 1931-32, gross reproduction rates have been computed for these two periods for the Registration Area considered as a whole and for each province which it contains.

The gross reproduction rate is intended to show how many female children each woman would produce during the child-bearing period, given a certain set of specific fertility rates, if no deaths occurred in the cohort of women while passing through this period. The steps which have been taken in the computation of these rates are as follows:—

Method of Computing.—1. The specific fertility rates of Statement XV have been added over the set of age periods, commencing with 15-19 and ending with 45-49 years and the sum has been multiplied by five because each age group comprises a five-year period. The result then represents the number of children born to each thousand women passing through the child-bearing period, assuming that no deaths take place during their passage through this period. For the Registration Area this "total fertility rate"* was 3,470 per thousand women or 3·47 per woman for 1921-22 and 2,848 per thousand women or 2·85 per woman for 1931-32.

2. The masculinity rate has been applied to this total fertility rate in order to obtain the number of female children born to each woman (instead of the number of children of both sexes) under these conditions. For the Registration Area the aggregate of the years 1921-22 gave a masculinity rate for births of 1·057. To obtain the gross reproduction rate the total fertility rate is divided by 2·057, giving for each woman an average of 1·69 female children. For 1931-32 the masculinity rate was 1·054, so that the total fertility rate is divided by 2·054, giving a gross reproduction rate of 1·39.

* Note the distinction from the more common meaning of the term as used on pages 59, 103 and 205.

Trend in Gross Reproduction Rates, 1921-1931.—Examination of the gross reproduction rates in Statement LII shows that not only the total of the eight provinces but each individual province suffered a decline in its gross reproduction rate between 1921-22 and 1931-32. The most substantial proportionate decline was in Manitoba where the rate fell from 1·94 for 1921-22 to 1·36 in 1931-32, a decline of 29·90 p.c. Next in order were Saskatchewan and British Columbia with proportionate declines of 19·71 p.c. and 19·38 p.c., respectively. The falling-off of the gross reproduction rate was least in the Maritime Provinces and, amongst these, least in Nova Scotia. In this province the decline was only from 1·71 to 1·63 or 4·7 p.c.

LII.—GROSS REPRODUCTION RATES, 1921-1922 AND 1931-1932 AND PERCENTAGE DECLINE OVER DECADE, REGISTRATION AREA AND PROVINCES

Province	Gross Reproduction Rate		P.C. Decline over Decade
	1921-22	1931-32	
Registration Area	1·69	1·39	17·75
Prince Edward Island	1·88	1·71	9·04
Nova Scotia	1·71	1·63	4·68
New Brunswick	2·10	1·93	8·10
Ontario	1·53	1·26	17·65
Manitoba	1·94	1·36	29·90
Saskatchewan	2·08	1·67	19·71
Alberta	1·89	1·60	15·34
British Columbia	1·29	1·04	19·38

Trend in Gross Reproduction Rates in the Prairie Provinces, 1921-1936.—In the case of the Prairie Provinces it is possible to calculate gross reproduction rates for four periods, viz., 1921, 1926, 1931 and 1936. The rates of total fertility and gross reproduction as based upon these years are shown in Statement LIII.

LIII.—TOTAL FERTILITY AND GROSS REPRODUCTION, SHOWING RATE AND PERCENTAGE EACH YEAR FORMS OF 1921, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Province and Year	Total Fertility		Gross Reproduction	
	Rate	P.C. of 1921	Rate	P.C. of 1921
Prairie Provinces—				
1921	4·13	100·00	2·01	100·00
1926	3·54	85·71	1·72	85·57
1931	3·24	78·45	1·58	78·61
1936	2·71	65·62	1·32	65·67
Manitoba—				
1921	4·05	100·00	1·98	100·00
1926	3·17	78·27	1·53	77·27
1931	2·82	69·63	1·40	70·71
1936	2·34	57·78	1·13	57·07
Saskatchewan—				
1921	4·33	100·00	2·09	100·00
1926	3·88	89·81	1·89	90·43
1931	3·45	80·86	1·69	80·86
1936	2·95	68·29	1·43	68·42
Alberta—				
1921	3·83	100·00	1·89	100·00
1926	3·52	91·43	1·72	91·01
1931	3·37	87·53	1·62	85·71
1936	2·82	73·25	1·38	73·02

The gross reproduction rate shows a progressive decline over the four periods in the case of each province and, of course, for the total of the provinces. Thus it will be observed that according to their fertility rates, women of all conjugal conditions in 1921 in the Prairie Provinces would, on the average, bear 2·01 female children if there were no deaths amongst the women in passing through this period. By 1926 the figure had come down to 1·72, by 1931 to 1·58 and by 1936 to

1·32. By comparison with Statement LII it is seen that the 1936 rate for Manitoba was lower than for any province of Canada in 1931-32 except British Columbia. The statement helps to explain what has already been said about Manitoba's decline. However, in general, the most serious decline in these three provinces took place between 1931 and 1936. This can readily be seen from the index in the last column of Statement LIII which expresses the reproduction rate of each year as an index of the rate of 1921.

Net Reproduction Rates.—As already stated, the gross reproduction rate takes no account of the possibility of a woman dying during the child-bearing period. Not only that but it also makes no allowance for the possibility of a female dying before attaining child-bearing age. Such possibilities are not, as a matter of fact, within the scope of fertility but they do affect the extent to which females of one generation are being replaced by an equal or greater number of female offspring in the next. A measure has therefore come somewhat widely into use in recent years which, together with the fertility of women of all conjugal conditions, takes into account the mortality rates from birth to the end of the child-bearing period. This measure is called the net reproduction rate.

Method of Computing.—In order to present net reproduction rates for 1921-22 and 1931-32, *i.e.*, for the same periods as those of the gross reproduction rates in Statement LII, it was necessary to have life tables showing the number of survivors from a unit number of female births in each of the five-year age groups for which fertility rates have been computed. These figures of survivors were furnished by the Social Analysis Branch of the Bureau of Statistics but this work has only been carried out for the Registration Area as the survivorship, to apply to the fertility rates of 1921-22, required the computation of a special table. The steps in the computation of the net reproduction rates were as follows:—

1. From a given number of female births the life tables supplied by the Social Analysis Branch gave the number of survivors in each five-year group between the 15th and 50th birthdays.

2. The specific fertility rates of all women shown in Statement XV were respectively applied to the number of survivors in each age group. This gave the total number of children born to the survivors during the whole child-bearing period. (As the total number of survivors in each five-year age group was used instead of the average number in the five-year age group, the multiplication by five which was performed in computing the gross reproduction rate was unnecessary.)

3. The masculinity rates of 1921-22 and 1931-32 were applied in the same manner as described above in connection with the gross reproduction rate in order to obtain the number of female children of the total number born (*i.e.*, both sexes).

4. The total number of female children born through the whole child-bearing period to the survivors of a *given number* of females at birth was divided by this *given number* to find the number of female offspring who would, on the average, replace each female child born under the conditions of survivorship and fertility existing at the period for which the computation was made.

Trend in Net Reproduction Rates.—The net reproduction rate for the Registration Area computed in this manner was 1·41 for 1921-22 and 1·21 for 1931-32. The decline was 14·18 p.c. as against a decline of 17·75 p.c. shown in Statement LII for the gross reproduction rate. This smaller decline is, of course, the result of improved survivorship at the later period partly counteracting the effect of decreased fertility.

Although the decline of 14·18 p.c. in the net reproduction rate was substantial, it will be observed in Statement LIV to follow that the population of the eight provinces as a whole had still, in 1931-32, sufficiently high fertility to do more than reproduce itself, since five female children born would, on the average, under the existing conditions of fertility and mortality, be replaced by more than six female offspring.

As already explained, it was not considered feasible to compute the net reproduction rate by provinces for a period around 1921. This has been done, however, for the three years 1930-32, life tables computed in the Social Analysis Branch being used to obtain the number of survivors for these rates. The results, together with the gross reproduction rates by provinces for the same period, are given in Statement LIV.

LIV.—GROSS AND NET REPRODUCTION RATES, CANADA, REGIONAL DIVISIONS AND PROVINCES, 1930-1932

Province or Region	Gross Reproduction Rate 1930-32	Net Reproduction Rate 1930-32
Canada	1·55	1·32
Maritime Provinces	1·76	1·47
Prince Edward Island	1·66	1·41
Nova Scotia	1·63	1·37
New Brunswick	1·93	1·61
Quebec	1·93	1·54
Ontario	1·23	1·13
Prairie Provinces	1·58	1·39
Manitoba	1·37	1·21
Saskatchewan	1·70	1·50
Alberta	1·65	1·45
British Columbia	1·07	0·94
Registration Area	1·41	1·23[1]

[1] The life table on which the net reproduction rate of the Registration Area has been computed was for 1931 only instead of 1930-32. The difference thus produced would be very slight.

For Canada as a whole, the gross reproduction rate for these three years was 1·55, the net reproduction rate, 1·32. Among the provinces, Quebec and New Brunswick stood highest in the gross reproduction rate with the same figure, 1·93. In the net reproduction rate, however, although they were still the first two provinces, better survivorship rates in New Brunswick gave that province a figure of 1·61 while Quebec stood at 1·54. Only one province, British Columbia, showed a net reproduction rate below unity, the figure being 0·94. In other words, under the fertility and mortality conditions existing in British Columbia for the period 1930-32 the female population was not reproducing itself. Of the remaining provinces, Ontario showed the narrowest margin, its net reproduction rate being 1·13.

Mean Length of One Generation.—Since the unit represented by the reproduction rates is obviously a generation, it is necessary to state the mean length of a generation. Following a method described by Dublin and Lotka this was calculated on the basis of the specific fertility rates of 1930-32 and *Canadian Life Tables, 1931*. The mean length of one generation thus calculated was 29·76 years in the case of females and 34·38 in the case of males referring to Canada as a whole.

PART II

DIFFERENTIAL FERTILITY

INTRODUCTION

Limitations of Introduction of Differential Fertility in Study of Post-War Trend.—
It would add to the value of consideration of the post-War trend in fertility if it could be considered in
relation to differential fertility, *i.e.*, if we could examine and compare the extent of the trend for
the different categories of the population under such classifications as rural and urban and regional
divisions, according to economic position as indicated, say, by the occupation of the father, or
for the various categories under such headings as racial origin and birthplace. For such study,
however, the material is either not available or available but in an imperfect form.

So far as a classification of births by rural or urban residence is concerned, or a division of
urban births into classes according to size, this is rendered impossible by the fact that from the
first the assignment of births was made according to the locality of occurrence, not according
to the residence of parents. The reasons underlying this choice were of a practical nature,
mainly the difficulties surrounding assignment to place of residence on account of the inexact
manner in which this was frequently given on the certificate. These difficulties, while still
existing, have been at least partially overcome and the first classification of births by place of
residence was made for the purpose of this monograph for the years 1930-32. Full details of the
classifications will appear in Chapter VII. The routine year-by-year classification on this basis
commenced only with the year 1936. To differentiate the rural and urban trend on the basis of a
classification of births by place of occurrence might be very misleading owing to the fact that
there appears to be, in general, a tendency more and more for the event to take place in an institu-
tion and this would introduce a definite and quite important bias; the fact that many births in
large urban institutions are to mothers residing in smaller urban units or in rural communities
puts such an analysis out of the question.

Since the institutionalization of births is in itself an interesting subject apart from its
importance as a disturbing factor in analysing regional birth rates, a brief summary of births in
institutions is given in Statement LV.

LV.—PERCENTAGE BIRTHS IN INSTITUTIONS FORM OF TOTAL BIRTHS, CANADA, 1926-1936

Year	Live Births		
	Total	In Institutions	
		No.	P.C
1926	232,750	41,521	17·8
1927	234,188	45,148	19·3
1928	236,757	50,979	21·5
1929	235,415	57,730	24·5
1930	243,495	64,850	26·6
1931	240,473	64,524	26·8
1932	235,066	64,770	27·5
1933	222,868	63,564	28·5
1934	221,303	66,441	30·0
1935	221,451	71,507	32·3
1936	220,371	76,047	34·5

Material for any analysis by occupation is also lacking for the early part of the period. The
National System of Vital Statistics having been initiated only in the year 1920, it was natural
that the tabulations of the early years should be less minute than at a later stage and no classi-
fication of births by occupation of the father was made for years sufficiently close to the Census of
1921 to allow of a comparison with a period close to the Census of 1931.

Dating from the first detailed report (for the year 1921), racial origin of parents and birth-
place of parents have been tabulated year by year and province by province; but, for the period
in the neighbourhood of the Census of 1921, neither the classification of births by racial origin
nor the census classification by racial origin or birthplace is available by suitable age groups for
detailed analysis. In the two next chapters, therefore, dealing respectively with racial origin
and birthplace, the rates which are compared at the time of the two censuses are merely crude
rates.

CHAPTER V

RACIAL DIFFERENCES IN FERTILITY

BIRTHS AND BIRTH RATES BY RACIAL ORIGIN

Trend in the Registration Area.—Statement LVI shows, for the Registration Area, the annual number and index (based on 1921) of live births for certain racial origins over the period 1921-36, with crude rates for each of the specified origins for the average of 1921-22 and of 1931-32. In computing these rates it was assumed that in the estimates of population for 1922 and 1932 each racial origin bore the same proportion to the total as at the Censuses of 1921 and 1931, respectively. It might be disputed whether the gain in having the births of two years in each case for the purpose of stability is not offset by this assumption but an additional reason for basing the rates in each case on the births of two years was that the number of births to parents of unstated origin was much greater in 1921 than in subsequent years.

The births have been listed according to the racial origin of the father in the case of legitimate births and of the mother in the case of illegitimate births.

In addition to the racial origins which have been selected on account of their considerable numbers, the statement includes Indian, Negro, Chinese and Japanese because of special interest which might be attached to these origins. Indian, for the purpose of this statement, includes also half-breeds stated as such. With Chinese, Japanese and Negro births are included also those for which one parent was of one of these origins, but, if one parent belonged to one of these origins and the other parent to another, the origin of the father was given the preference.

Disposing first of these origins, it will be noted that the statement shows a marked upward trend for Indian births which, however, may be mainly attributed to constantly improving registration of Indians. At the beginning of the period one province, Manitoba, would not accept Indian registrations while in some other cases no adequate provision had been made for obtaining them. Through the efforts of the Provincial Registrars, the Department of Indian Affairs and the Dominion Bureau of Statistics, this condition was gradually remedied, so that the registration of Indian births at the end of the period, as evidenced by a crude birth rate of 32·90 per thousand, was well on its way to a satisfactory condition. Japanese births during the first half of the period showed an upward trend which was reversed during the last half. It is probable that the upward movement was, in the main, merely an apparent one due to improved birth registration as Japanese parents came to find the advantages arising from registration. Chinese births also showed some upward movement in the early part of the period but it was much more slight and uncertain and the general tendency has been downward. The crude birth rate for 1921-22 was only 8·92 and fell to 5·73 for 1931-32. These rates compare with 38·98 and 33·72, respectively for Japanese births but the disparity between these two sets of figures is very largely accounted for by the much more favourable age and sex distribution of the Japanese population of Canada. Negro births showed no very definite trend either upward or downward. Their birth rate was 23·99 for 1921-22 and 22·42 for 1931-32.

Looking at the absolute figures for the chief racial origins, it will be observed that out of a decline of some 24,000 births between the first and last year of the period, births to British stocks alone accounted for almost the full decline, the difference between 1921 and 1936 being more than 23,000. The birth rate of these origins for 1921-22 was 22·63 and for 1931-32 was 18·13. As among Enlgish, Irish and Scottish, the English birth rate showed the heaviest decline, the Irish the least. The English rate was still, however, the highest of the three for 1931-32.

French births showed a fluctuating movement of small extent over the period and were somewhat higher at the end than at the beginning but the crude rate declined from 33·51 in 1921-22 to 29·59 in 1931-32. In other words, the births to this racial stock did not appear to increase during this ten years in any proportion commensurate with the increase in population.

90

LVI.—NUMBER AND INDEX (BASED ON 1921) OF LIVE BIRTHS, BY SPECIFIED RACIAL ORIGIN¹, REGISTRATION AREA, 1921-1936, WITH CRUDE RATES FOR THE AVERAGE OF 1921-1922 AND OF 1931-1932

Year	All Races	British	English	Irish	Scottish	French	Belgian	Central and Eastern European	Chinese	Dutch	Hebrew	Indian	Italian	Japanese	Negro	Scandinavian
						BIRTHS										
1921	168,979	106,528	60,462	20,566	24,564	19,064	560	22,434	321	1,642	1,615	1,224	2,252	627	409	4,148
1922	164,194	98,813	54,893	19,715	23,327	18,880	518	21,571	347	1,587	1,642	1,529	2,145	613	423	3,878
1923	156,897	101,403	56,102	20,219	24,282	18,629	481	21,531	388	1,656	1,605	1,613	2,134	689	419	3,893
1924	157,595	100,112	54,853	20,682	23,728	19,120	479	22,887	345	1,890	1,476	2,134	2,292	715	426	3,991
1925	154,861	97,956	53,229	20,529	23,387	19,032	488	22,484	350	1,855	1,465	2,413	2,178	753	421	3,934
1926	150,585	93,975	51,128	19,467	22,522	18,838	509	22,827	324	1,944	1,366	2,391	2,061	801	392	3,992
1927	151,124	93,252	50,119	19,664	22,632	18,820	528	23,345	299	2,099	1,287	2,554	2,126	872	437	4,071
1928	153,136	93,622	49,954	19,813	22,968	18,594	544	24,371	254	2,267	1,400	2,538	2,093	872	437	4,293
1929	154,035	92,277	49,679	19,556	22,137	18,889	500	25,673	277	2,337	1,472	2,930	1,976	890	370	4,544
1930	159,870	94,984	50,903	20,411	22,789	19,176	604	28,091	276	2,433	1,495	3,071	2,061	853	394	4,843
1931	156,867	91,771	48,290	20,373	22,128	19,508	605	28,188	257	2,594	1,499	3,267	1,976	842	391	4,561
1932	153,450	88,668	46,527	19,751	21,510	19,639	548	27,763	247	2,551	1,453	3,690	1,885	735	412	4,607
1933	145,948	84,018	44,174	18,952	20,072	18,775	498	26,460	227	2,474	1,369	3,708	1,679	668	433	4,363
1934	144,871	83,170	43,314	18,868	20,063	18,766	545	26,091	212	2,535	1,253	3,990	1,641	648	421	4,422
1935	146,184	83,314	43,116	18,979	20,273	19,764	574	25,995	193	*2,712	1,330	3,950	1,641	563	456	4,451
1936	145,085	83,200	43,199	19,103	19,967	19,685	546	25,227	202	2,700	1,324	3,982	1,536	575	477	4,477
Crude birth rate¹																
1921-22	25·81	22·63	24·42	19·77	21·51	33·51	31·63	30·66	8·92	13·83	20·70	14·56	43·18	33·98	23·99	24·19
1931-32	20·60	18·13	18·81	17·77	17·24	29·50	24·60	25·18	5·73	17·39	15·13	32·90	26·18	33·72	22·42	20·45

¹ Crude rates for 1921-22 were computed as follows: the total births were divided by twice the female population of 1921. This gave a rate for "all races" of 54·22. To make an adjustment for the difference in population in 1922, the rate 54·22 was multiplied by a factor $\frac{2 \text{ (population 1921)}}{\text{population 1921} + \text{population 1922}}$ or 0·994. The rate for the two years 1921-22 thus obtained was 53·89. Rates for each racial origin were obtained by the same method. Rates for 1931-32 were computed in a similar manner.

² See page 20.

LVI.—NUMBER AND INDEX (BASED ON 1921) OF LIVE BIRTHS, BY SPECIFIED RACIAL ORIGIN[3], REGISTRATION AREA, 1921-1936, WITH CRUDE RATES FOR THE AVERAGE OF 1921-1922 AND OF 1931-1932—Con.

INDEX OF BIRTHS

Year	All Races	British	English	Irish	Scottish	French	Belgian	Central and Eastern European	Chinese	Dutch	Hebrew	Indian	Italian	Japanese	Negro	Scandinavian
1921	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1922	97·2	92·8	90·8	95·9	94·6	99·1	92·5	96·2	108·1	96·7	101·7	124·9	95·2	97·8	103·4	93·5
1923	92·8	95·2	92·8	98·3	98·5	97·7	85·9	97·3	120·9	100·9	99·4	132·2	97·8	109·9	102·4	93·9
1924	93·3	94·0	90·7	100·6	96·2	100·3	85·5	101·1	107·5	109·0	91·4	174·3	101·8	114·0	104·2	96·2
1925	91·6	92·0	88·0	99·8	94·8	99·8	87·1	100·2	109·0	113·6	90·7	197·1	96·7	120·1	102·9	94·8
1926	89·1	88·2	84·6	94·7	91·3	98·5	90·9	101·8	100·9	118·4	84·6	195·3	91·5	127·8	95·8	96·2
1927	89·4	87·5	82·9	95·6	91·8	98·7	94·3	104·1	93·1	127·8	79·7	208·7	94·4	130·9	105·9	98·1
1928	90·6	87·9	82·6	96·3	93·1	98·1	97·1	108·6	79·1	138·1	86·7	207·4	92·9	139·1	106·8	103·5
1929	91·2	86·6	82·2	95·1	89·8	99·1	105·4	114·4	86·3	142·3	91·1	239·4	87·7	141·9	90·5	109·5
1930	94·6	89·2	84·2	99·2	92·4	100·6	107·9	124·8	86·0	148·9	92·6	250·9	91·5	136·0	96·3	116·8
1931	92·8	86·1	79·9	99·1	89·7	102·3	108·0	125·6	80·1	158·0	92·8	266·9	87·7	134·3	95·6	110·0
1932	90·8	83·2	77·0	96·0	87·2	103·0	97·9	123·8	76·9	155·4	90·0	301·5	83·7	117·2	150·7	111·1
1933	86·4	78·9	73·1	92·2	81·4	98·5	88·9	117·9	70·7	150·7	84·8	302·9	74·6	106·5	105·9	105·2
1934	85·7	78·1	71·6	91·7	81·3	98·4	97·3	116·3	66·0	154·4	79·4	326·0	70·0	103·3	102·9	106·6
1935	86·5	78·2	71·3	92·3	82·2	103·7	102·5	116·9	60·1	165·2	82·7	322·7	72·9	89·5	110·0	107·3
1936	85·9	78·1	71·4	92·9	81·0	103·3	97·5	112·4	62·9	164·4	82·0	325·3	68·2	91·7	116·6	107·9

The number of births of Dutch racial origin showed a considerable increase during the period. There were 1,642 in 1921 and only 1,587 in 1922, but in 1935 and 1936 the number of births of this racial origin was in the neighbourhood of 2,700. A mere increase in the Dutch population between 1921 and 1931 did not by any means account for the increase in Dutch births during the decade, since the rate for 1921-22 was only 13·83 and increased to 17·39 for 1931-32. Both rates have an artificial appearance, the first one particularly so. This may be attributed to the confusion of Dutch racial origin with German, of which there is evidence at the beginning of the period under review. It would produce its effect on the birth rate, of course, by increasing the number of births returned as Dutch in less proportion than the increase in the census population returned as Dutch.

Italian births showed, on the whole, a well-marked downward trend during the period, though fluctuations were frequent. The rate for 1921-22 was the highest of any racial origin listed in the statement, 43·18, but after a lapse of ten years it had declined to 26·18 for 1931-32.

In spite of a very substantial increase in the Hebrew population between 1921 and 1931, the number of births during the period showed a tendency to fall off. The rate for 1921-22 was 20·70; for 1931-32, 15·18. The downward trend continued, in the main, through the remaining years of the period with the result that Hebrew births, which in 1921 numbered 1,615 and in 1922 numbered 1,642, gave a total of only 1,324 in 1936. This was not the lowest year of the period, for 1927 had shown only 1,287 births and 1934 only 1,283.

Scandinavian racial origins, which include Danish, Icelandic, Norwegian and Swedish, showed a slight upward trend in numbers with a downward fluctuation in certain years. Between 1921-22 and 1931-32 the rate fell from 24·19 to 20·45 and declined during the period somewhat less proportionately than that of "all races."

Owing to the difficulty in bringing together figures from vital statistics records and from census compilations for the races of Central and Eastern Europe treated separately, these origins have been combined in the statement. They include German, Russian, Finnish, Polish, Ukrainian, "Austrian" and the origins of the Balkan states, as well as those racial origins from the smaller states which were formed after the War in territory formerly belonging to Russia. The inclusion of German is due to the fact that many inhabitants of the territory forming the old Austro-Hungarian Empire were of Germanic origin and speech and an unknown number of those returned as Austrian were in the same category. Some confusion must also be expected between Ukrainian and Russian, though probably confined, in the main, to the beginning of the period. Ukrainians from the old Austro-Hungarian Empire are frequently returned as "Austrian."

In absolute numbers the racial origins of Central and Eastern Europe show, in general, an upward movement during the period but the highest number of births for these origins was in 1930 and 1931 and from this point a decline of nearly 3,000 took place before the end of the year 1936. The birth rate of these origins was 30·66 in 1921-22 and 25·18 in 1931-32. This decline, it may be observed was proportionately somewhat smaller than that of all racial origins combined.

Trend in Canada as a Whole.—Statement LVII presents by racial origin for Canada (nine provinces) the annual number and index (based on 1926) of births for the years 1926-36.

In 1926 we have 232,750 births and then an upward trend to 1930, when the number was 243,495. From this point there were yearly reductions until 1936, with the exception of 1935 which showed an increase of 148 over the previous year. The 1936 figure, 220,371 births, showed a marked decrease from that of the beginning of the period. This decrease of 12,379 is almost wholly accounted for by the decrease in births to British stocks of 11,774, a fall from 100,612 in 1926 to 88,838 in 1936. The fall in births of English origin was 8,386 and of Scottish origin, 2,742. Irish make up the remaining decline of 729.

Births of French origin varied irregularly throughout the whole period, reaching their high of 92,305 in 1928 and their low of 85,551 in 1934 and showing slight recoveries in 1935 and 1936.

Of the other main origins we find Dutch with the large percentage increase of 37·3. In 1926 there were 1,977 Dutch births, increasing not uninterruptedly to 2,714 in 1936. The number of Italian births was 2,823 in 1926 and 2,919 in 1927 but gradually declined to reach a low of

LVII.—NUMBER AND INDEX (BASED ON 1926) OF LIVE BIRTHS, BY SPECIFIED RACIAL ORIGIN[1], CANADA (NINE PROVINCES), 1926-1936, WITH CRUDE RATES FOR THE AVERAGE OF 1931-1932

Year	All Races	British	English	Irish	Scottish	French	Belgian	Central and Eastern European	Chinese	Dutch	Hebrew	Indian	Italian	Japanese	Negro	Scandinavian
								BIRTHS								
1926	232,750	100,612	54,405	21,614	23,713	91,131	580	23,441	337	1,977	2,051	2,621	2,823	802	417	4,026
1927	234,188	99,949	53,335	21,866	23,890	92,136	604	23,895	308	2,123	1,970	2,757	2,910	821	458	4,128
1928	236,757	100,283	53,194	22,064	24,129	92,368	627	24,906	265	2,299	2,155	2,747	2,871	873	406	4,343
1929	235,415	98,627	52,869	21,577	23,257	90,361	655	26,255	290	2,368	2,188	3,116	2,743	891	401	4,620
1930	243,495	101,850	54,312	22,601	24,022	91,877	680	28,552	287	2,462	2,209	3,296	2,768	853	438	4,926
1931	240,473	98,500	51,697	22,461	23,342	92,241	678	29,154	270	2,615	2,173	3,459	2,687	843	414	4,647
1932	233,566	95,182	49,304	21,797	22,691	91,470	608	28,514	261	2,581	2,204	3,891	2,509	733	435	4,699
1933	222,368	89,923	47,212	20,773	21,104	85,917	580	27,401	246	2,506	2,136	3,972	2,269	670	434	4,440
1934	221,303	88,934	46,297	20,675	21,023	55,551	604	26,980	223	2,554	2,105	4,266	2,143	649	434	4,513
1935	221,451	89,129	46,081	20,835	21,255	55,506	639	26,751	215	2,735	2,171	4,237	2,195	563	470	4,518
1936	220,371	88,533	46,019	20,885	20,971	55,707	633	26,013	210	2,714	2,147	4,289	2,048	575	490	4,558
Crude birth rate[2] 1931-32	22·53	17·89	18·41	17·88	17·01	31·19	23·20	24·98	5·68	17·34	13·88	30·81	26·31	33·68	21·65	20·39
								INDEX OF BIRTHS								
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1927	100·6	99·3	98·0	101·2	100·7	101·1	104·1	101·9	91·4	107·4	96·1	105·2	103·4	102·4	109·8	102·5
1928	101·7	99·7	97·8	102·1	101·8	101·3	108·1	106·2	78·6	116·3	105·1	104·8	101·7	108·9	111·8	107·9
1929	101·1	98·0	97·2	99·8	98·1	99·2	112·9	112·3	86·1	119·8	106·7	118·9	97·2	111·1	96·2	114·8
1930	104·6	101·2	99·8	104·6	101·3	100·8	117·2	123·1	85·2	124·5	107·7	125·8	98·1	106·4	105·0	122·4
1931	103·3	97·9	95·0	103·9	98·4	101·2	116·9	124·4	80·1	132·3	105·9	132·0	95·2	105·1	99·3	115·4
1932	100·3	94·6	91·5	100·8	95·7	100·4	105·0	121·6	77·4	130·6	107·5	148·5	88·9	91·6	103·8	116·6
1933	95·8	89·4	86·8	96·1	89·0	94·3	96·4	116·9	73·0	126·8	104·1	151·5	80·4	83·5	108·9	110·3
1934	95·1	88·4	85·1	95·7	88·7	93·9	104·1	115·1	66·2	129·2	102·6	162·8	75·9	80·9	104·1	112·1
1935	95·1	88·6	84·7	96·4	89·6	93·9	110·2	114·1	63·8	138·3	105·9	161·7	77·8	70·2	112·7	112·2
1936	94·7	88·3	84·6	96·6	88·4	94·0	104·0	111·0	62·3	137·3	104·7	163·6	72·5	71·7	117·5	113·2

[1] See footnote 1 to Statement LVI.
[2] See page 90.

2,048 in 1936. Scandinavian births showed considerable fluctuation from a low of 4,026 in 1926 to 4,558 in 1936 but over the whole period had a percentage increase of 13·2. Births to Central and Eastern European origins had an increase of some 5,700 births from 1926 to 1931 and, although declining gradually from 1931 to 1936, showed a percentage increase of 11·0 for the whole period.

Beginning with 2,051 in 1926, births to Hebrew origin reached a high of 2,209 in 1930. Considerable fluctuation was in evidence but the tendency was to increase and in 1936 we have 2,147.

Indian births, showing an almost uninterrupted increase from 1926, reached 4,266 in 1934 and maintained that level, showing 4,289 in 1936. The absolute figures for births to Japanese show an upward trend reaching a high of 891 in 1929, gradually declining to 563 in 1935 and then increasing very slightly to 575 in 1936. At the beginning of the period, Chinese births show a tendency to decrease and, although in 1929 a small increase is shown, the general tendency is downward, giving a percentage decrease of 37·7 over the whole period. Births of Negro origin fluctuated over the period but, on the whole, showed an increase of some 17 p.c.

Statement LVII shows also rates for the average of 1931-35 which have been computed using the population figures of 1931, the only decennial census year in this period. For "all races" the rate is 22·83. This, however, is surpassed by Japanese with 33·68, French with 31·19, Indian with 30·81, Italian with 26·31, Central and Eastern European with 24·98 and Belgian with 23·20. For all British stocks the rate for the total is somewhat lower than for "all races." Individually, these range from English, 18·41 to Scottish, 17·01. The lowest rate of all races is shown by Chinese, 5·68, due to the unfavourable sex distribution of the population. Others under the average were: Scandinavian, 20·39; Negro, 21·65; Dutch, 17·34; Hebrew, 13·88.

Trend in Quebec.—With her entry into the National System of registration in 1926, Quebec contributed 82,185 births to the total for Canada, this figure increasing to 83,621 in 1928. Although in the year 1929 some 2,200 less than the 1928 births were registered, the years 1930 and 1931 regained the former level. From these figures, 83,625 and 83,606, the following years showed a gradual falling off to 75,267 in 1935 and 75,285 in 1936, a decline of 6,880 births for the decade.

Births to the French origin, decreasing from 72,293 in 1926 to 66,022 in 1936, account for 6,271 of the total decline. This is the greatest decrease in absolute figures but is lower in percentage than the decrease in births of British origin. The percentage decline for French was 8·7 and for the British, 15·2. French births reached a peak of 73,611 in 1928 (probably this increase over the years 1926 and 1927 was partially due to better registration) and their lowest point was 65,842 in 1935. Births to British stock, contributing only 8 p.c. of the births in the province of Quebec, were around 6,600 for the first three years, fluctuated from 6,350 in 1929 to 6,866 in 1930 which was the peak year and then declined year by year with the exception of 1935 to their lowest figure, 5,628 births in 1936.

The other origins contributing any appreciable number of births were Italian, Hebrew, Central and Eastern European and Indian. Of these only the Italian showed a decrease. Starting with 762 in 1926 and 793 in 1927, the Italian births declined with one exception to 512 in 1936. Hebrew births numbered 685 at the beginning of the period and 755 in 1928; after showing a slight downward trend to 1931 with a low in that year of 674, they recovered gradually to 835 in 1935 and 823 in 1936. Central and Eastern European with 614 births in 1926 had their low of 535 in 1928 and from this point improved to 1,051 in 1932. From then on they showed a decrease to 756 in 1935 with a small recovery to 791 in 1936. The Indian births fluctuated from 230 in 1926 to 192 in 1931. From here they showed slight but steady increases to a high of 307 in 1936.

The census year, 1931, is the only one in this period for which we have population by racial origin, so we are unable to make any comparisons of the beginning and the close of the period. However, we have computed the crude rates for the average of 1931-35 (see Statement LVIII).

The French birth rate, 31·65, is the only one higher than the rate for "all races" which was 28·68. Italian comes next with a rate of 26·71 and Central and Eastern European third with 20·54. Among the British races with a rate for the total of 15·21 we find the Irish with 18·98, the English with 14·15 and the Scottish with 13·64. The Hebrew rate for this period was 11·79 and the Indian rate 14·50.

LVIII.—NUMBER AND INDEX (BASED ON 1926) OF LIVE BIRTHS, BY SPECIFIED RACIAL ORIGIN[1], QUEBEC, 1926-1936, WITH CRUDE RATES FOR THE AVERAGE OF 1931-1932

BIRTHS

Year	All Races	British	English	Irish	Scottish	French	Belgian	Central and Eastern European	Chinese	Dutch	Hebrew	Indian	Italian	Japanese	Negro	Scandinavian
1926	82,165	6,637	3,277	2,147	1,191	72,293	71	614	13	33	655	230	762	1	25	34
1927	83,064	6,697	3,216	2,202	1,258	73,316	76	550	13	34	683	203	795	—	25	57
1928	83,621	6,661	3,240	2,251	1,161	73,611	83	535	11	32	755	209	778	1	29	50
1929	81,380	6,350	3,190	2,021	1,120	71,472	65	652	13	31	716	186	767	1	31	76
1930	83,625	6,896	3,409	2,190	1,240	72,701	76	852	11	26	714	225	707	—	44	83
1931	83,606	6,729	3,407	2,089	1,214	72,733	73	966	13	21	674	192	711	1	23	86
1932	82,116	6,514	3,277	2,046	1,181	71,831	61	1,051	14	30	751	206	634	—	21	89
1933	76,920	5,905	3,038	1,821	1,032	67,144	61	941	10	32	707	264	590	2	21	77
1934	76,432	5,764	2,983	1,807	960	66,785	59	889	11	19	822	270	567	1	21	91
1935	75,267	5,815	2,965	1,856	982	65,842	65	756	22	23	835	287	554	—	13	91
1936	75,285	5,628	2,820	1,782	1,004	66,022	57	791	8	14	823	307	512	—	20	81
Crude birth rate[2] 1931-32	28·68	15·21	14·15	18·98	13·64	31·65	15·40	20·54	4·88	13·90	11·79	14·50	26·71	11·56	13·26	17·63

INDEX OF BIRTHS

Year	All Races	British	English	Irish	Scottish	French	Belgian	Central and Eastern European	Chinese	Dutch	Hebrew	Indian	Italian	Japanese	Negro	Scandinavian
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1927	101·1	100·9	98·1	102·6	105·6	101·4	107·0	89·6	100·0	103·0	104·3	88·3	104·3	—	100·0	167·6
1928	101·8	100·4	98·9	104·8	97·5	101·8	116·9	87·1	84·6	97·0	115·3	90·9	102·1	100·0	116·0	147·1
1929	99·0	95·7	97·3	94·1	94·0	98·9	91·5	106·2	100·0	93·9	109·3	80·9	100·7	100·0	124·0	223·5
1930	101·8	103·9	104·0	102·0	104·1	100·6	107·0	138·8	84·6	78·8	109·0	97·8	92·8	—	176·0	244·1
1931	101·8	101·4	104·0	97·3	101·9	100·6	102·8	157·3	100·0	63·6	102·9	83·5	93·3	100·0	92·0	252·9
1932	100·1	98·1	100·0	95·3	99·2	99·4	85·9	171·2	107·7	90·9	114·7	89·6	83·2	—	84·0	261·8
1933	93·6	89·0	92·7	84·8	86·6	92·9	85·9	153·3	76·9	97·0	107·9	114·8	77·4	200·0	84·0	226·5
1934	93·0	86·8	91·0	84·2	80·6	92·4	83·1	144·8	84·6	57·6	125·5	117·4	74·4	100·0	84·0	267·6
1935	91·6	87·6	90·5	86·4	82·5	91·1	91·5	123·1	169·2	69·7	127·5	124·8	72·7	—	52·0	267·6
1936	91·6	84·8	86·1	83·0	84·3	91·3	80·3	128·8	61·5	42·4	125·6	133·5	67·2	—	80·0	238·2

[1] See footnote 1 to Statement LVI.

[2] See page 90

ORDER OF BIRTH BY RACIAL ORIGIN

Statement LIX shows the average number of children (1) born alive, (2) now living (*i.e.*, at date of report of latest birth), (3) born dead and (4) born alive or dead of mothers of stated racial origin, an extract from Table 10, Part III, page 148, which shows this same information by age group of mother.

LIX.—AVERAGE NUMBER OF CHILDREN (1) BORN ALIVE, (2) NOW LIVING, (3) BORN DEAD AND (4) BORN ALIVE OR DEAD, BY RACIAL ORIGIN OF MOTHER, CANADA, 1930

Racial Origin of Mother	Average No. of Children			
	Born Alive	Now Living	Born Dead	Born Alive or Dead
All races	3·92	3·47	0·10	4·02
British	3·08	2·86	0·11	3·19
English	3·05	2·83	0·11	3·15
Irish	3·27	3·01	0·12	3·39
Scottish	3·01	2·90	0·11	3·12
French	4·97	4·23	0·09	5·06
Belgian	3·16	2·88	0·08	3·24
Central and Eastern European	3·71	3·33	0·10	3·80
Austrian	4·30	3·83	0·13	4·43
Bulgarian	1·56	1·37	0·11	1·67
Czech and Slovak	2·80	2·54	0·07	2·87
Finnish	2·22	2·04	0·10	2·32
German	3·78	3·44	0·10	3·88
Greek	3·01	2·68	0·15	3·16
Hungarian	3·35	2·89	0·09	3·44
Polish	3·42	3·07	0·09	3·51
Roumanian	4·37	3·75	0·14	4·51
Russian	4·03	3·62	0·10	4·13
Serb and Croat	2·92	2·60	0·10	3·02
Ukrainian	3·92	3·49	0·10	4·01
Chinese	4·50	4·37	0·05	4·04
Dutch	3·82	3·47	0·05	3·91
Hebrew	2·34	2·23	0·08	2·41
Indian	4·43	3·46	0·08	4·51
Italian	3·71	3·29	0·12	3·83
Japanese	3·57	3·35	0·07	3·64
Negro	4·29	3·74	0·20	4·49
Scandinavian	3·21	3·00	0·09	3·30
Danish	2·77	2·58	0·10	2·87
Icelandic	3·49	3·28	0·11	3·61
Norwegian	3·31	3·11	0·09	3·40
Swedish	3·20	2·99	0·08	3·28

Statement LX contains a summary of the same data adjusted for differences in ages of mothers. There is a striking lack of variation in the proportion now living of the number born alive, ranging from 95 p.c. in the case of the Chinese to 78 p.c. in the case of Indians as compared with a range of 4·77 children born alive in the case of the French to 1·22 in the case of the Bulgarian. The average number born dead ranges from 0·20 in the case of Negro to 0·05 in the case of Chinese mothers. The number of births alive or dead is highest for Roumanian mothers (4·88) and lowest for Hebrew mothers (2·67). There seems to be no evidence in the data of a clear-cut division along racial lines. This would seem to make the data of Statements LIX and LX none the less valuable in showing the differential number of births to a race. The standard deviation of the average number born alive as in Statement LX is 0·78 in an average of 3·57. The differential in the birth rates shown in Statement LVI should not be attributed exclusively to racial differences which may be in fact subordinate to associated differentials of age and sex distribution, urbanization, etc.

LX.—AVERAGE NUMBER OF CHILDREN (1) BORN ALIVE, (2) NOW LIVING, (3) BORN DEAD AND (4) BORN ALIVE OR DEAD, ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, BY RACIAL ORIGIN OF MOTHER, CANADA, 1930

Racial Origin of Mother	Average No. of Children				Proportion of	
	Born Alive	Now Living	Born Dead	Born Alive or Dead	Children Now Living to Children Born Alive	Children Born Dead to Children Born Alive or Dead
All races	3·92	3·47	0·10	4·02	88·52	2·49
British	3·12	2·89	0·11	3·23	92·63	3·41
English	3·15	2·92	0·11	3·26	92·79	3·37
Irish	3·21	2·95	0·12	3·33	91·90	3·61
Scottish	2·98	2·77	0·11	3·08	92·95	3·57
French	4·77	4·07	0·09	4·85	85·32	1·85
Belgian	3·26	2·96	0·09	3·34	90·80	2·69
Central and Eastern European	3·97	3·56	0·10	4·08	89·67	2·45
Austrian	4·42	3·93	0·14	4·55	88·91	3·08
Bulgarian	1·22	1·06	0·08	1·30	86·89	6·15
Czech and Slovak	3·17	2·89	0·08	3·25	91·17	2·46
Finnish	2·63	2·38	0·12	2·75	90·49	4·36
German	3·88	3·53	0·10	3·98	90·98	2·51
Greek	3·02	2·68	0·16	3·18	88·74	5·03
Hungarian	3·75	3·22	0·09	3·84	85·87	2·34
Polish	3·83	3·41	0·10	3·93	89·03	2·54
Roumanian	4·73	4·04	0·15	4·88	85·41	3·07
Russian	4·07	3·66	0·10	4·17	89·93	2·40
Serb and Croat	3·26	2·89	0·12	3·38	88·65	3·55
Ukrainian	4·48	3·94	0·11	4·59	87·95	2·40
Chinese	4·34	4·14	0·05	4·39	95·39	1·14
Dutch	3·88	3·52	0·09	3·97	90·72	2·27
Hebrew	2·59	2·45	0·08	2·67	94·59	3·00
Indian	4·75	3·69	0·08	4·84	77·68	1·65
Italian	3·83	3·39	0·12	3·95	88·51	3·04
Japanese	3·47	3·26	0·07	3·54	93·95	1·98
Negro	4·42	3·55	0·20	4·62	87·10	4·33
Scandinavian	3·24	3·03	0·09	3·33	93·52	2·70
Danish	2·99	2·77	0·10	3·09	92·64	3·24
Icelandic	3·26	3·06	0·10	3·36	90·87	2·98
Norwegian	3·29	3·08	0·09	3·37	93·62	2·67
Swedish	3·28	3·07	0·08	3·36	93·60	2·38

ACCUMULATED BIRTHS BY RACIAL ORIGIN OVER THE PERIOD OF RECORDS

While importance is usually attached to differential rates in considering births by racial origin, it is obvious from the foregoing statement of trend that these differential rates lose a great deal of their significance because of their rapid changes; e.g., one race may to-day show a rate quite different from that of another but if its rate declines more rapidly it is obvious that in time it will not show this difference. It would be valuable, if it were possible to do so, to measure the comparative rates of increase and decline in order to arrive at some conclusion as to when such situations should arise but, obviously, this cannot be done owing to the facts that (1) we have no yearly population figures for precise rates and (2) the period of observation covered by the vital statistics records is too short. Furthermore, as will be seen in a later section, there is a process going on which seriously complicates a study of this kind, viz., the amalgamation of races, to say nothing of a fact already observed, viz., that there is evidence of some confusion in reporting races. For these reasons, and principally that the amalgamation of races seems to be proceeding rapidly, it will be useful to take stock of the total contribution of the different races to the births during the period of observation. These were not exactly contributions to the population since deaths occurring among these births cannot be differentiated by race and since differential infant mortality is probably a very important factor, but they are roughly proportional to contributions to the population. Accordingly, Statement LXI shows the total number of births appearing in the nine provinces over the eleven-year period, 1926-36, differentiating twelve individual racial origins and two groups which could not be shown as individual origins, viz., the Scandinavians and the Central and Eastern Europeans. In this statement the British races are counted as one race and thus the changing percentages are not influenced by intermarriage among English, Irish, Scottish and Welsh.

In spite of the risk of doing so, an attempt is shown in the statement to estimate the probable number of these births alive in 1936 on the assumption of uniform infant and child mortality, viz., that of the nine provinces. This is merely to give a rough idea of the net contributions, since, as already mentioned, differential mortality may be an important factor.

LXI.—NUMERICAL AND PERCENTAGE DISTRIBUTION OF CHILDREN BORN OVER THE PERIOD 1926-1936 WITH THE PROBABLE NUMBER ALIVE IN 1936, BY RACIAL ORIGIN, CANADA

Racial Origin[1]	Children Born 1926-36		Probable No. Alive in 1936
	No.	P.C.	
All races..	2,544,737	100·0	2,303,150
British..	1,051,827	41·3	951,545
English...	555,225	21·8	502,144
Irish..	237,148	9·3	214,578
Scottish..	249,397	9·8	225,609
French...	984,302	38·7	890,885
Belgian..	6,838	0·3	6,192
Central and Eastern European................................	292,537	11·5	264,968
Chinese...	2,912	0·1	2,629
Dutch...	26,934	1·1	24,438
Hebrew..	23,500	0·9	21,296
Indian..	38,651	1·5	35,137
Italian...	27,976	1·1	25,262
Japanese..	8,276	0·3	7,469
Negro...	4,875	0·2	4,419
Scandinavian..	49,415	1·9	44,771

[1] See page 90.

During the 11 years there were 2,544,737 births to all origins. The estimate of probable survivors of these in toto is not complicated by the difficulties mentioned and amount to 2,303,150 who should be 10 years of age and under in 1936, a very small number being 11 years of age. This number can be compared with the number 10 years of age and under in the nine provinces in 1931, viz., 2,439,344, from whom should be deducted a few in Yukon and Northwest Territories but to whom should be added some at 11 years of age. The probability that some of the 2,300,000 left the country need not be great since during the period emigrants and immigrants practically balanced. There must have been, then, a decline of considerably more than 100,000 in the population as these grew.

The contributions of the different races and racial groups to the total of 2,544,737 births were as follows: British, 41·3 p.c., consisting of English, 21·8 p.c., Irish, 9·3 p.c. and Scottish, 9·8 p.c.; French, 38·7 p.c.; Belgian, 0·3 p.c.; Central and Eastern European, 11·5 p.c.; Chinese, 0·1 p.c.; Dutch, 1·1 p.c.; Hebrew, 0·9 p.c.; Indian, 1·5 p.c.; Italian, 1·1 p.c.; Japanese, 0·3 p.c.; Negro, 0·2 p.c.; Scandinavian, 1·9 p.c.; or, to summarize, 41·3 p.c. British, 38·7 p.c. French and 20·0 p.c. other races. The composite of the population under 10 years of age (not strictly comparable with distribution of accumulated births but the nearest the census data will permit) in 1931 was 44·3 p.c. British, 34·9 p.c. French and 20·8 p.c. other races. It is probable that if differential infant mortality were taken into consideration the proportions would be found not to have undergone very considerable changes.

TREND IN INTERMINGLING OF RACES AS SHOWN BY BIRTHS

The last section suggests the all-important subject of the trend in intermingling of races. The birth statistics show the racial origin of the father cross-classified by the racial origin of the mother. In this cross-classification it is easy to see where the races are intermingling by the fact that the two parents are of different origins. Statement LXII shows the percentage of the total births that have parents of different origins, the data being for the Registration Area from 1921 to 1936, for the total of the nine provinces from 1926 to 1936 and also for Quebec alone from 1926 to 1936. It shows also the number of births to parents of the same origin and the number to parents of different origins.

LXII.—TOTAL BIRTHS, BIRTHS TO PARENTS OF THE SAME RACIAL ORIGIN AND NUMBER AND
PERCENTAGE BIRTHS TO PARENTS OF DIFFERENT RACIAL ORIGINS FORM OF TOTAL
BIRTHS, REGISTRATION AREA, 1921-1936, CANADA AND QUEBEC, 1926-1936

Year	Total Births[1]	Births to Parents of Same Racial Origin	Births to Parents of Different Racial Origins	
			No.	P.C. of Total Births
Registration Area—				
1921	144,887	129,863	15,024	10·37
1922	146,840	129,851	16,989	11·57
1923	151,643	133,274	18,369	12·11
1924	152,183	133,255	18,928	12·44
1925	149,708	130,561	19,057	12·73
1926	145,897	126,496	19,401	13·30
1927	145,724	125,842	19,882	13·64
1928	147,006	126,190	20,816	14·16
1929	147,517	125,675	21,842	14·81
1930	153,195	130,508	22,687	14·81
1931	150,098	126,481	23,617	15·73
1932	145,672	122,968	23,704	16·16
1933	139,220	115,523	23,697	17·02
1934	138,427	113,822	24,605	17·77
1935	139,683	113,825	25,858	18·51
1936	138,287	111,577	26,710	19·31
Canada—				
1926	225,848	203,190	22,658	10·03
1927	226,400	203,401	22,999	10·16
1928	228,155	204,303	23,552	10·50
1929	226,446	201,400	25,040	11·06
1930	234,232	208,297	25,935	11·07
1931	231,166	204,264	26,931	11·65
1932	226,407	199,401	27,006	11·93
1933	213,655	186,841	26,814	12·55
1934	212,411	184,780	27,631	13·01
1935	212,354	183,452	28,902	13·61
1936	211,046	181,198	29,848	14·14
Quebec—				
1926	79,951	76,694	3,257	4·07
1927	80,676	77,559	3,117	3·86
1928	81,149	78,013	3,136	3·86
1929	78,929	75,725	3,204	4·06
1930	81,037	77,789	3,248	4·01
1931	81,097	77,783	3,314	4·09
1932	79,735	76,433	3,302	4·14
1933	74,435	71,318	3,117	4·19
1934	73,164	70,138	3,026	4·09
1935	72,571	69,527	3,044	4·19
1936	72,759	69,621	3,138	4·31

[1] Parents of stated origin.

Taking first the Registration Area over the 16-year period, 1921-1936, it is seen that in 1921 the percentage of exogenous (*i.e.*, where the two parents are of different racial origins) was 10·37 while in 1936 it was 19·31, *i.e.*, the process of intermingling had almost doubled. Furthermore, when the rates of increase of the percentages are compared at the beginning and at the end there is evidence of acceleration in the process. Thus, during the first eight years it went from 10·37 to 14·16, *i.e.*, moved up 3·79 points; during the last eight years it moved from 14·81 to 19·31 or 4·50 points. It would seem then that the intermingling began slowly but is proceeding at an accelerating pace as time goes on. This is the case in the Registration Area. When the case of the nine provinces over the eleven-year period is studied, it is found that the movement was not so rapid, proceeding from 10·03 in 1926 (as compared with 13·30 in the Registration Area) to 14·14 in 1936—only 4·11 points compared with 6·01 in the Registration Area. In Quebec in 1926 it was 4·07, moving up to 4·31 in 1936. Of course, this is readily explained by the fact that Quebec is mainly one race. In elaboration of the foregoing, Statement LXIII shows for specified races the number of births where (1) the mother is of stated origin, (2) both parents are of the same stated origin.

LXIII.—BIRTHS TO MOTHERS OF STATED ORIGIN AND TO PARENTS OF THE SAME STATED ORIGIN, BY SPECIFIED RACIAL ORIGIN, CANADA, 1926-1936

Racial Origin	Births 1926-36	
	To Mothers of Stated Origin	With Both Parents of Stated Origin
All races	2,544,737	2,160,427
British	1,038,773	897,697
English	567,117	368,985
Irish	220,693	96,876
Scottish	242,838	105,965
French	1,000,303	913,890
Belgian	6,520	3,757
Central and Eastern European	300,372	219,014
Chinese	2,910	2,437
Dutch	25,488	13,415
Hebrew	23,126	22,541
Indian	38,635	30,108
Italian	23,509	21,047
Japanese	8,276	8,166
Negro	4,897	3,581
Scandinavian	46,809	25,426

The statement refers to the accumulated births over the period 1926-36 in the nine provinces. It really shows that there is something more than the mere propensity to in-marriage in the proportions of births to the parents in the same origins, e.g., the English show much greater proportions than the Irish or Scottish and there is little doubt that this is at least partly because there are more English women that (1) English men, (2) Irish or Scottish men, can marry; similarly with the French. It would be difficult for a French man in Quebec to marry a woman of origin other than French because the proportion of the latter to the former is small. It is, of course, different with the other races and from their point of view the propensity to in-marriage is understated instead of being overstated by the figures while probably it is very much overstated in the case of the English and the French. In Quebec in 1931 there were 504,011 men of French origin between the ages of 20 and 60; for the women there were, between the ages, say, of 15 and 50, of French origin, 557,630, of other origins, 162,223. Supposing that all these men wanted wives and had no choice in the matter of origin, 78 p.c. of the wives they chose would have to be French. If, however, the men of other racial origins showed propensity to pick out wives of the same race as themselves, the French would have to choose more than 78 p.c. of their wives from among the French women. These things have to be considered in interpreting the data of Statement LXIII.

FERTILITY RATES BY RACIAL ORIGIN

Specific Rates of Women of All Conjugal Conditions, 1930-1932.—Statement LXIV presents the specific fertility rates and the total fertility rates of women of all conjugal conditions in Canada for the different races for the average of the three years 1930-32. This period centres around the Census of 1931.

LXIV.—SPECIFIC FERTILITY RATES¹ OF WOMEN 15-49 YEARS OF AGE OF ALL CONJUGAL CONDITIONS, BY AGE AND RACIAL ORIGIN OF MOTHER; WITH TOTAL FERTILITY RATES², BY RACIAL ORIGIN OF MOTHER, CANADA, 1930-1932

Racial Origin of Mother	Specific Fertility Rates for Mothers in Age Group							Total Fertility Rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
All races	29·5	136·7	174·4	144·9	103·2	44·8	5·3	3·19
British	28·7	115·4	136·5	108·1	70·1	27·3	2·7	2·44
English	31·4	127·3	143·3	107·1	68·2	26·4	2·8	2·54
Irish	24·2	102·9	128·8	112·0	74·8	30·2	2·5	2·38
Scottish	23·4	103·4	130·5	107·0	70·6	26·8	2·0	2·32
French	26·9	157·9	233·0	218·0	178·8	87·2	11·3	4·57
Belgian	33·3	143·4	156·4	112·0	84·9	35·0	6·3	2·85
Central and Eastern European	36·4	169·2	190·0	150·8	109·0	51·5	8·3	3·57
Austrian	22·0	128·4	159·0	133·6	105·2	59·5	7·5	3·08
Bulgarian	42·3	216·7	93·0	87·0	45·5			2·42
Czech and Slovak	45·5	184·8	218·9	104·5	131·0	35·9	8·6	2·95
Finnish	38·9	110·3	97·0	71·0	46·6	24·1	4·3	1·97
German	33·6	164·0	193·1	149·3	110·5	53·9	6·6	3·55
Greek	17·9	134·8	241·1	122·4	90·5	42·4	20·0	3·35
Hungarian	64·7	222·3	218·3	159·4	119·9	54·1	10·9	4·25
Polish	34·0	152·2	186·6	145·2	100·5	44·2	9·6	3·96
Roumanian	37·5	157·2	168·0	129·3	86·3	45·9	4·9	3·15
Russian	23·3	115·4	141·1	151·6	112·0	50·3	9·0	3·01
Serb and Croat	78·5	286·7	290·4	214·0	167·3	54·1	8·9	5·48
Ukrainian	45·5	226·9	226·6	186·6	123·7	58·5	13·5	4·41
Chinese	35·7	206·5	235·0	222·2	210·0	97·6	34·8	5·21
Dutch	21·5	108·9	137·6	107·0	76·5	35·7	3·9	2·46
Hebrew	4·3	50·3	108·1	80·5	39·5	9·9	0·7	1·51
Indian	79·8	204·8	199·6	173·7	143·7	72·0	16·3	4·45
Italian	34·2	173·8	195·5	159·9	123·8	55·5	8·3	3·75
Japanese	33·2	284·6	297·1	217·9	158·6	78·7	10·6	5·40
Negro	58·2	137·2	153·0	101·5	80·8	36·6	4·3	2·86
Scandinavian	27·6	136·6	162·2	123·9	93·0	41·8	5·6	2·95
Danish	28·4	135·2	157·1	117·5	73·4	35·1	1·8	2·77
Icelandic	16·1	109·7	143·1	124·6	92·2	49·3	6·9	2·72
Norwegian	29·5	150·4	175·3	134·3	100·3	47·2	6·7	3·25
Swedish	27·8	128·5	154·4	114·4	83·3	35·5	5·8	2·75

¹ Rates per 1,000 women of age and race specified.
² For method of calculation, see page 82.

Looking at the specific fertility rates for the chief racial origins, it will be observed that the rates for the British are below average in each age group. Individually, English are the lowest in the age groups 35-39 and 40-44, Irish in the groups 20-24, 25-29 and 45-49 while Scottish are lowest in the age groups 15-19 and 30-34.

The specific fertility rates for French are higher than "all races" in every group except the 15-19 group. Dutch rates are all quite low, though in no case do they reach the extreme. Among the races showing the highest rates are Japanese, Chinese, Italian and Indian. In the group 15-19 Indian shows the highest rate, 79·8. In the four oldest age groups Chinese show the highest rates with 222·2, 210·0, 97·6 and 34·8. Hebrew show extremely low rates; they are the lowest of all races in the 15-19 group with 4·3, in the 20-24 group with 59·3 and in the 35-39 group with 39·3.

Considering the Scandinavian group as a whole, in all the age groups the specific rates are closer to the average than any other racial or individual race.

Central and Eastern European, including several races which vary irregularly from the average in the different age groups, show rates higher than average in each age group. In the age group 15-19 the rate is 36·4; in the groups 20-24 and 25-29, 169·2 and 190·0. Among the twelve races in this racial grouping Serbs and Croats show the highest rates in these two age groups. Ukrainian are highest in the oldest age group and Austrian highest in the 40-44 group. In all age groups the Germans are slightly better than average.

Total Fertility Rates.—The total fertility rates have been computed from the specific fertility rates and range from a high of 5·48 for Serbs and Croats to a low of 1·51 for Hebrew. The total fertility for all races is 3·19.

In the different racial groups shown, British and Scandinavian are below average with 2·44 and 2·95, respectively, and Central and Eastern European somewhat higher with 3·57. Origins

with rates very much higher than average are Serbs and Croats, 5·48; Japanese, 5·40; Chinese, 5·21; French, 4·57; Indian, 4·45; Ukrainian, 4·41; Hungarian, 4·25. Finnish has a rate of 1·97 which is very low though somewhat higher than Hebrew, the lowest as already mentioned.

Fertility Rates within Marriage.—Such rates as have already been used in this chapter were based upon the total population and as such do not fully measure the true fertility of the different origins. For the purpose it is necessary to consider the rates within marriage, taking into consideration the age composition of married women. Table 11, Part III, page 153, shows for the three years 1930-32 the number of births by age of (married) mother to the different races in the nine provinces; also the number of married women at ages 15-49 in 1931. Based upon the specific fertility obtained in this table, Statement LXV shows the total rates obtained when these specific rates are applied to the standard population of married females*. It will be seen that the highest thus computed is for French, 242·55; the next highest was for Chinese and Japanese, 201·31. The lowest is Hebrew, 84·41, a little lower than the Finnish, 93·70. The British with 128·88 occupy eleventh place in eighteen origins, i.e., is somewhat less than average. There is no marked racial grouping in these rates, i.e., the Ukrainians are high and the Russians are low; the Italians are high and the Roumanians are low; the Germans are high and the Austrians are low; the Scandinavians are a good average but the Dutch and Belgians are quite low. A great deal of this is doubtless due to confusion in reporting race.

LXV.—TOTAL FERTILITY RATES FOR THE CHILD-BEARING AGES, BY RACIAL ORIGIN OF MOTHER, BASED ON STANDARD POPULATION OF MARRIED FEMALES, CANADA, 1930-1932

Racial Origin of Mother	Standardised Total Fertility Rate (per 1,000)
British	128·88
French	242·55
Austrian	121·35
Belgian	122·66
Chinese and Japanese	201·31
Czech and Slovak	150·63
Dutch	115·81
Finnish	93·70
German	163·06
Hebrew	84·41
Hungarian	153·14
Indian	155·66
Italian	152·91
Polish	130·45
Roumanian	113·38
Russian	121·00
Scandinavian	137·09
Ukrainian	162·20

Specific Fertility in the Prairie Provinces, 1926, 1931 and 1936.—The probable confusion in reporting races which interfered with the interpretation of the fertility rates of the nine provinces is largely avoided in data compiled for the Prairie Provinces for 1926, 1931 and 1936. As these provinces contain a very large proportion of the different races other than French, the data consequently contain a fairly large proportion of the different races other than French, the data are consequently fairly representative of Canada as a whole, except for the British and French. Table 12, Part III, page 153, shows the specific fertility rates during these years by age of mother. Statement LXVI shows a computation of the total fertility, i.e., the number of children of both sexes expected to be born to a mother in passing through the child-bearing period as based upon the rates shown in Table 12.

* As of Canada, 1931.

LXVI.—TOTAL FERTILITY RATES[1] OF WOMEN OF ALL CONJUGAL CONDITIONS, BY RACIAL ORIGIN OF MOTHER, PRAIRIE PROVINCES, 1926, 1931 AND 1936

Racial Origin of Mother	1926	1931	1936
All races	3·54	3·24	2·71
British	2·88	2·54	2·08
English	2·93	2·59	2·00
Irish	2·75	2·50	2·21
Scottish	2·89	2·51	2·10
French	4·38	4·05	3·67
Belgian	3·99	3·29	3·33
Central and Eastern European	5·00	4·26	3·33
Austrian	4·83	3·62	3·43
Bulgarian	2·80	1·25	1·71
Czech and Slovak	4·20	3·68	3·18
Finnish	4·06	3·01	3·05
German	5·02	4·70	3·41
Greek	4·24	3·16	2·41
Hungarian	4·11	4·65	3·71
Polish	3·07	3·69	2·93
Roumanian	5·71	3·66	3·03
Russian	3·64	3·20	3·45
Serb and Croat	6·73	6·91	4·94
Ukrainian	5·14	4·63	3·34
Chinese	11·59	6·12	4·50
Dutch	2·73	3·41	3·74
Hebrew	2·55	1·59	1·23
Indian	4·41	5·97	8·71
Italian	3·87	2·94	1·88
Japanese	6·74	5·67	5·51
Negro	2·68	1·79	3·38
Scandinavian	3·51	3·12	2·77
Danish	3·22	3·03	2·79
Icelandic	3·00	2·78	2·48
Norwegian	3·86	3·44	2·93
Swedish	3·38	2·81	2·65

[1] For method of calculation, see page 82.

In 1926 the highest total fertility was shown by Chinese with 11·59, Japanese with 6·74 and Serbs and Croats with 6·73; the lowest was shown by the Hebrews with 2·55, Negroes with 2·68 and Dutch with 2·73. The British showed 2·9.

In 1931 the Serbs and Croats were highest with 6·91, the Chinese next with 6·12 and the Indian third with 5·97; the lowest were the Bulgarians with 1·25 and the Hebrew with 1·59. The British rate was 2·54.

In 1936 the Indian race was highest with 8·71, the Japanese and Serbs and Croats next with 5·51 and 4·94, respectively; the lowest were the Hebrew with 1·23 and the Bulgarians with 1·71. The British were fourth lowest with 2·08.

It should be mentioned that in all cases several races have rates based upon very small numbers. These are the Bulgarians, Chinese, Greeks, Japanese, Negroes and Serbs and Croats.

The figures show remarkable differential changes, sufficient to convince us that it is impossible to envisage the future distribution of races in Canada.

Miscellaneous Phases of Racial Fertility.—A monograph, *Racial Origin and Nativity of the Canadian People*, by Professor W. B. Hurd, contains a chapter on intermarriage of races (Chapter VII). This chapter goes into the matter in a great deal more detail than do the foregoing paragraphs, especially into comparisons between the sexes of individual races and race groups. Some of the conclusions are as follows:—

"Colour and the cultural differences associated therewith again appear as the greatest of all barriers to intermarriage. The parentage of children born in 1931 indicates that some 92·2 p.c. of the males and 96·2 p.c. of the females in the average coloured race were married to persons of the same origin, as against 93·8 p.c. and 94·7 p.c. in 1921, the percentages in both cases being based on figures for the Chinese, Japanese, Negroes and Indians." This trend in coloured races between 1921 and 1931 is quite different from the trend noticed above in the case of all races.

"The high proportion of endogamous marriages for the women of Latin and Greek origin is still an outstanding characteristic of the figures." Perhaps the most important phase discussed

in the monograph that has not already been commented on in this chapter is the extent of inter-marriage as between other races and the two basic stocks of Canada. Statement LXII above reflects increasing intermarriage but does not indicate whether this is between allied stocks or foreign stocks and native stocks. Professor Hurd concludes that "after making all reasonable allowance . . . . it still seems apparent that many of the ingredients in Canada's 'melting pot' have as yet scarcely begun to dissolve in so far as intermarriage with the basic Anglo-Saxon stocks is a criterion." He also notes that those who have married least with the British have married to the greatest extent with the French and vice versa. By making certain measurements he ascertains that the factors in the way of intermarriage, are in order of importance: (1) segregation (geographical); (2) short duration of residence; (3) size of group; (4) percentage rural (probably another phase of segregation; Professor Hurd uses percentage urban which he finds favourable to intermarriage), and (5) surplus males, the last mentioned being very unimportant *per se*. External factors influence males to a much greater extent than females and, strangely enough, percentage urban seems to be unfavourable to female intermarriage. Furthermore, such external factors as have been examined affect different races quite differently.

As regards intermarriage of foreign stocks with British races, length of residence seems to be the greatest determinant. On the whole, however, most of the external factors seem to be concomitant and probably merely incidental to another factor more important than all, *viz.*, religion.

CONCLUSIONS

Two important points seem to have been brought to light in the study of the trend of births by racial origins: (1) one and all have shared in a general decline and owing to the difference in the time over which this decline has been operating for different races, no one can say whether it is proceeding faster for one race than another. (2) The births really indicate an increasing trend in the intermingling of races. This may not be an intermingling of foreign races with the dominant stocks but probably is none the less important for all that. If foreign races mingle with one another in a new country where they have failed to do so in an old the situation is hopeful. Moreover, racial ideologies in matters political are apt to be toned down in proportion as this process advances.

DIFFERENCES IN FERTILITY ACCORDING TO BIRTHPLACE OF PARENTS

Introduction.—The objectives of a study of births, birth rates and other phases of fertility according to the birthplace of parents are necessarily different from those of a study according to racial origin. In the latter it is concerned chiefly with the contribution to our population made by different stocks, the rates at which these contributions proceed and, chiefly, the extent to which the different stocks are intermingling. In the case of birthplace of parents these phases seem to be only of secondary importance, *e.g.*, it is not particularly valuable to known how much Russia is contributing to our population as people from Russia may be Russians, Germans, Hebrews, etc. These people differ in race, religion, education and probably somewhat even in customs. What seems to be the phase of chief importance to Canada arises from the fact that the great part of the country and the largest cities are populated largely by people who have changed their habitat—have moved and are still moving. This motion brings about an interchange of peoples and provides opportunity to persons born many miles apart to meet and marry. This certainly is a very different situation from that in which a stationary people marry among themselves. Interchange of culture, ideas and ideals must have important influences upon the progeny. If one parent of a child born in British Columbia was raised in Alberta, the other in Prince Edward Island and he himself lives to manhood in British Columbia, this should provide that child with an opportunity to know both his own province and the rest of the Dominion better than if both his parents had been born in British Columbia. At any rate, whether for good or bad, the influences should be different. It would be, of course, interesting to know in addition the comparative rates at which people from different countries are reproducing—for scientific purposes as well as for general interest. This is far more difficult to measure statistically than data on race because we do not know in how many places the parents have lived in the interval between their own birth and the birth of their children. It is also important, at least as a matter of scientific interest, to obtain for the data on births the extent to which intermarriage is influenced by proximity of residence, *e.g.*, is a woman who has been brought up in a certain locality more apt to marry a man brought up (1) in that locality, (2) in other parts of that province, (3) in a neighbouring province or (4) elsewhere? Do the groups of people living on either side of the United States border or of the border of two provinces intermarry or, with such opportunities for becoming acquainted, are there barriers political or cultural? It is impossible to do this thoroughly and it would be a big study in itself but some attention will be paid to the trend of births to parents both born in the same province compared with births to parents born in different provinces. An illustration of one of the phases of such a study may be useful. Taking Alberta which of all the provinces in 1931 had the smallest proportion of persons over 20 years of age born in the province, it is interesting to know from year to year the number of births to mothers born in Alberta, where the father was born either in (1) Alberta, (2) British Columbia or Saskatchewan, (3) elsewhere in Canada, (4) in the United States or (5) elsewhere.

In Alberta in 1926 there were 14,052 births. Of these, 2,330 had mothers born in that province and 776 had both parents born in Alberta. In 1936 there were 15,179 births in Alberta of which 6,208 had mothers Alberta-born and 2,682 had both parents Alberta-born, *i.e.*, in 1926, 16·6 p.c. of mothers and 5·5 p.c. of both parents were born in Alberta. These proportions had risen in 1936 to 40·9 p.c. of the mothers and 17·7 p.c. of both parents born in that province. Statement LXVII shows these features for the three Prairie Provinces for the years 1926 to 1936 as well as the same data for children born in any of the nine provinces of Canada whose mother had been born in one of the Prairie Provinces.

LXVII.—TOTAL CHILDREN BORN IN PROVINCE AND YEARLY BIRTHS IN CANADA AND PROVINCES TO MOTHERS BORN IN PROVINCE, BY BIRTHPLACE OF FATHER, PRAIRIE PROVINCES, 1926-1936

Province and Year	No. of Children Born in Province	Yearly Births in Canada to Mothers Born in Province						Yearly Births in Province to Mothers Born in Province					
		Total	Father Born in Province	Father Born in Adjacent Province	Father Born Elsewhere in Canada	Father Born in the United States	Father Born Elsewhere in World	Total	Father Born in Province	Father Born in Adjacent Province	Father Born Elsewhere in Canada	Father Born in the United States	Father Born Elsewhere in World
Manitoba—													
1926	14,195	8,132	3,422	1,349	531	514	2,316	5,327	2,779	599	229	203	1,508
1927	13,674	8,449	3,567	1,329	538	550	2,466	5,517	2,944	574	216	245	1,533
1928	13,995	8,898	3,761	1,417	581	592	2,547	5,769	3,110	565	229	235	1,630
1929	13,718	9,128	4,010	1,343	557	629	2,569	5,916	3,335	500	198	267	1,616
1930	13,871	9,569	4,289	1,388	591	591	2,710	6,270	3,552	541	213	238	1,726
1931	13,863	9,674	4,412	1,361	559	622	2,720	6,553	3,815	532	218	253	1,735
1932	13,621	10,121	4,724	1,442	584	574	2,797	6,922	4,100	565	189	250	1,818
1933	12,801	9,839	4,733	1,357	561	551	2,697	6,832	4,165	493	170	233	1,771
1934	12,798	10,325	5,116	1,391	585	528	2,705	7,312	4,551	529	199	243	1,791
1935	12,802	10,724	5,386	1,487	563	552	2,736	7,610	4,811	542	206	241	1,810
1936	12,362	10,797	5,590	1,478	586	526	2,617	7,607	5,016	525	186	225	1,655
Saskatchewan—													
1926	20,326	3,890	1,067	368	690	433	1,332	3,185	1,024	250	445	366	1,100
1927	20,583	4,450	1,218	408	780	478	1,560	3,609	1,171	260	502	398	1,278
1928	20,785	5,014	1,355	511	850	585	1,713	4,029	1,300	333	535	478	1,383
1929	20,906	5,775	1,655	571	1,005	645	1,901	4,690	1,563	390	617	533	1,543
1930	21,432	6,559	1,953	681	1,016	796	2,174	5,264	1,858	430	623	590	1,763
1931	20,693	7,079	2,162	785	1,098	813	2,221	5,689	2,056	499	698	664	1,772
1932	20,162	8,007	2,547	854	1,237	879	2,490	6,376	2,430	513	754	723	1,956
1933	19,499	8,587	2,867	909	1,218	973	2,621	6,842	2,702	543	725	821	2,051
1934	19,086	9,571	3,331	1,071	1,359	1,028	2,782	7,545	3,128	626	797	844	2,150
1935	18,929	10,503	3,946	1,150	1,476	1,096	2,865	8,249	3,718	634	798	869	2,230
1936	18,422	11,344	4,339	1,337	1,561	1,134	2,973	8,669	4,018	583	791	916	2,261
Alberta—													
1926	14,052	2,692	786	74	460	427	936	2,330	770	26	321	383	824
1927	14,479	2,966	900	98	555	468	945	2,546	884	32	400	413	817
1928	15,214	3,292	999	99	560	553	1,042	2,844	973	40	419	530	882
1929	16,387	3,979	1,248	154	702	666	1,309	3,408	1,212	72	494	589	1,041
1930	17,092	4,421	1,422	161	784	696	1,358	3,790	1,383	72	556	623	1,156
1931	16,617	4,770	1,538	200	842	742	1,448	4,085	1,540	89	604	670	1,200
1932	16,385	5,045	1,689	252	848	752	1,504	4,277	1,627	102	597	664	1,287
1933	15,500	5,509	1,891	288	861	838	1,633	4,674	1,827	128	681	749	1,375
1934	15,547	6,237	2,248	360	993	877	1,760	5,309	2,175	176	673	777	1,508
1935	15,569	6,940	2,546	409	1,136	896	1,953	5,822	2,446	196	747	797	1,636
1936	15,179	7,465	2,789	537	1,182	931	1,994	6,208	2,682	274	760	829	1,663

CENSUS OF CANADA, 1931

Trend in Births by Birthplace of Mother, Registration Area, 1921-1936, and Crude Rates, 1921-1922 and 1931-1932.—Statement LXIX shows, for the Registration Area, the number and index (based on 1921) of live births by birthplace of mother with crude rates for the average of 1921-22 and 1931-32. We might mention here that this statement could have been made using birthplace of father but, as birth certificates of illegitimate children show only birthplace of mother, the method we chose gives about 4 p.c. more complete information. One interesting feature of this statement is summarized in Statement LXVIII, viz., that though the number of births to Canadian-born mothers fluctuated year by year over the period they formed a steadily increasing proportion of total births. In 1921 they formed 56·5 p.c. of the births and in 1936, 75·0 p.c. Births to British-born mothers showed an opposite tendency; from 21·7 p.c. in 1921 they fell yearly until they contributed only 10·2 p.c. in 1936. This was likewise true of births to foreign-born mothers though the decrease was neither steady nor as great, from 20·1 p.c. in 1921 to 14·7 p.c. in 1936.

LXVIII.—PERCENTAGE DISTRIBUTION OF MOTHERS, BY BIRTHPLACE, REGISTRATION AREA, 1921-1936, AND CANADA AND QUEBEC, 1926-1936.

Year	All Birth-places	Canada	British Isles and Possessions	United States	Other Countries	Not Stated
Registration Area—						
1921	100·0	56·5	21·7	7·5	12·6	1·7
1922	100·0	57·5	20·9	7·5	12·6	1·5
1923	100·0	59·0	20·2	7·4	12·7	0·7
1924	100·0	59·9	19·6	7·4	12·7	0·4
1925	100·0	60·7	19·2	7·3	12·6	0·2
1926	100·0	61·3	18·6	7·2	12·7	0·2
1927	100·0	61·8	18·1	7·0	12·9	0·2
1928	100·0	61·8	17·8	7·0	13·2	0·2
1929	100·0	62·1	17·2	6·8	13·6	0·3
1930	100·0	62·3	16·8	6·5	14·2	0·2
1931	100·0	63·9	15·5	6·3	14·1	0·2
1932	100·0	66·0	14·4	6·2	13·3	0·1
1933	100·0	68·3	13·3	6·1	12·3	–
1934	100·0	70·7	12·1	5·7	11·3	0·2
1935	100·0	72·9	11·1	5·4	10·5	0·1
1936	100·0	75·0	10·2	5·3	9·4	0·1
Canada—						
1926	100·0	71·8	13·0	5·8	9·0	0·4
1927	100·0	72·2	12·6	5·6	9·0	0·6
1928	100·0	72·2	12·4	5·5	9·3	0·0
1929	100·0	72·4	12·3	5·1	9·7	0·0
1930	100·0	72·4	12·0	4·9	10·1	0·0
1931	100·0	73·7	11·0	4·7	10·0	0·0
1932	100·0	75·3	10·2	4·6	9·4	0·5
1933	100·0	76·7	9·5	4·3	9·0	0·5
1934	100·0	78·5	8·5	4·2	8·2	0·5
1935	100·0	80·0	8·0	4·0	7·5	0·5
1936	100·0	81·6	7·3	3·9	6·8	0·4
Quebec—						
1926	100·0	91·0	2·8	3·0	2·2	1·0
1927	100·0	91·2	2·6	3·0	1·9	1·3
1928	100·0	91·4	2·5	2·8	2·0	1·3
1929	100·0	92·0	2·6	1·0	2·1	1·4
1930	100·0	91·7	2·7	1·8	2·3	1·5
1931	100·0	92·0	2·6	1·8	2·2	1·4
1932	100·0	92·7	2·4	1·6	2·3	1·0
1933	100·0	92·8	2·3	1·5	2·3	1·2
1934	100·0	93·1	2·1	1·3	2·3	1·3
1935	100·0	93·7	1·9	1·3	1·9	1·2
1936	100·0	94·1	1·8	1·2	1·7	1·2

Of the 168,979 children born in 1936 in the Registration Area, Canadian-born mothers were the largest contributors with 95,549 children, British-born second with 36,619 and United States-born next with 12,668 children. Mothers born in Russia, Austria and Poland were next in importance, each group contributing around 4,000. Italian-born mothers accounted for 1,672. Going down the scale we have the following numbers of children with corresponding birthplace of mother: Sweden, 838; Norway, 754; Germany, 631; Japan, 591; France, 555; Belgium, 507; Hungary, 409; Finland, 377; and China, 301.

BIRTHS

Year	All Birth places	Canada	British Isles and British Possessions	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland[1]	Roumania	Russia[2]	Sweden	China	Japan	United States
1921	168,979	95,549	36,619	4,130	507	153	377	555	631	251	409	1,672	754	3,931	*	4,338	838	301	591	12,668
1922	164,194	94,475	34,236	3,625	465	180	360	483	585	*	405	1,604	682	4,060	*	3,706	749	312	613	12,379
1923	156,897	92,988	31,357	3,357	429	155	349	446	537	*	370	1,639	629	3,957	*	3,522	721	349	688	11,610
1924	167,065	94,466	30,841	3,293	414	162	422	438	528	*	366	1,677	660	3,955	*	3,310	753	299	709	11,555
1925	154,561	94,043	29,781	3,113	401	179	477	392	502	*	387	1,604	638	3,751	*	3,538	670	301	743	11,553
1926	150,885	92,249	27,942	2,888	418	191	457	348	619	229	447	1,478	615	3,506	1,069	4,133	663	267	770	10,903
1927	151,124	93,143	27,391	2,640	460	225	514	361	650	240	544	1,502	672	3,562	937	4,348	600	245	799	10,579
1928	150,436	94,563	27,286	2,657	467	269	547	307	748	305	620	1,487	643	3,804	1,043	4,415	613	200	848	10,726
1929	154,030	95,608	26,581	2,583	462	349	566	330	847	306	782	1,354	626	3,826	973	4,414	600	203	848	10,440
1930	156,570	96,594	26,853	2,545	469	378	658	299	964	313	1,089	1,377	706	4,982	970	4,636	626	186	803	10,355
1931	156,867	100,280	24,249	2,293	421	344	638	242	1,014	296	1,030	1,236	672	5,307	884	4,331	577	165	781	9,397
1932	143,948	101,317	22,082	2,001	396	336	523	251	916	260	958	1,113	644	5,258	866	3,905	506	142	667	9,518
1933	145,945	99,616	19,344	1,766	340	303	480	213	909	252	935	921	535	4,601	719	3,564	439	125	587	8,843
1934	144,871	102,462	17,541	1,573	321	307	456	185	530	225	779	797	454	4,560	607	3,315	370	109	525	8,324
1935	146,184	106,531	16,263	1,356	299	282	426	174	660	229	717	805	396	3,896	543	3,099	363	95	433	7,920
1936	145,686	105,883	14,731	1,148	282	213	403	174	650	188	604	704	383	3,636	514	2,685	303	84	405	7,661

Crude birth rates[3]—

Year	All Birth places	Canada	British Isles and British Possessions	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland[1]	Roumania	Russia[2]	Sweden	China	Japan	United States
1921-22	53·89	41·16	77·69	174·49	104·09	83·64	77·93	88·45	57·37	113·41	124·25	194·46	86·40	151·69	*	100·30	84·40	267·49	179·00	80·08
1931-32	43·21	37·42	46·17	154·18	67·64	74·11	54·11	48·75	67·20	74·79	112·21	100·16	63·19	83·48	68·36	84·56	52·71	131·37	164·64	67·44

INDEX OF BIRTHS

Year	All Birth places	Canada	British Isles and British Possessions	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland[1]	Roumania	Russia[2]	Sweden	China	Japan	United States
1921	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	*	100·0	100·0	100·0	100·0	*	100·0	100·0	100·0	100·0	100·0
1922	97·2	98·9	93·5	87·8	91·7	98·4	95·5	87·0	92·7	*	99·0	95·9	90·5	103·3	*	85·4	89·4	103·7	103·7	97·7
1923	92·8	96·9	85·6	81·3	84·6	101·3	92·6	80·4	85·1	*	90·5	98·0	83·4	100·6	*	81·2	86·0	115·9	116·1	91·7
1924	98·9	98·9	84·2	79·7	81·7	105·9	111·9	78·9	83·7	*	89·5	100·3	87·4	100·6	*	80·9	89·7	99·3	120·0	91·4
1925	91·6	98·4	81·3	75·4	79·1	117·0	97·6	70·6	79·1	*	94·6	95·9	84·6	95·4	*	81·6	80·0	100·0	125·7	91·2
1926	89·1	96·5	76·3	69·9	82·4	124·8	121·2	62·7	99·1	91·2	109·3	88·4	81·6	89·2	100·0	95·3	79·1	88·7	130·3	86·1
1927	89·4	97·5	74·8	63·9	90·7	123·0	136·3	65·0	103·0	95·6	133·0	89·8	89·1	90·7	87·7	100·2	71·6	81·4	135·2	83·5
1928	90·6	99·0	74·5	64·3	92·1	153·0	145·1	55·3	118·5	121·9	151·6	88·9	85·3	96·8	98·5	101·8	73·2	66·4	143·5	84·7
1929	91·2	100·1	72·6	62·5	91·1	228·1	150·1	59·5	134·2	121·9	191·4	80·9	83·0	97·3	103·8	101·8	71·6	67·4	143·5	82·4
1930	94·6	104·2	73·3	61·6	92·5	246·0	174·5	53·9	152·8	124·7	266·3	82·4	93·6	126·7	91·9	106·9	74·7	61·8	135·9	81·7
1931	92·8	105·0	66·2	55·5	83·0	224·8	169·2	43·6	160·7	117·9	253·1	73·9	89·1	135·1	83·9	99·8	68·8	54·8	132·2	74·2
1932	85·0	106·0	60·3	48·5	78·1	219·6	138·7	45·2	145·3	103·6	234·8	66·6	85·4	133·8	81·1	90·0	60·3	47·2	111·2	75·1
1933	86·4	104·3	52·8	42·8	67·1	198·0	127·3	38·4	144·0	100·4	228·4	55·1	71·0	117·0	68·1	81·9	52·4	41·6	99·3	69·8
1934	85·7	107·2	47·9	38·1	63·3	200·7	120·9	33·3	131·5	89·5	190·5	47·7	60·2	108·6	57·4	76·4	44·2	36·2	88·8	65·7
1935	86·5	111·5	44·4	32·8	64·9	184·3	113·0	31·4	126·8	91·2	175·3	48·1	52·5	99·1	51·4	71·4	43·3	31·6	72·5	62·5
1936	85·9	114·0	40·2	27·8	55·6	116·4	106·9	31·4	103·0	74·9	147·7	42·1	50·8	92·5	51·4	56·5	36·2	27·9	68·5	60·5

¹ Includes Galicia.   ² Includes Ukraine.   *Figures not available.   ³ See footnote 1 to Statement LVI.   ⁴ Index based on 1926 figure as data for years 1921-25 not available.

In 1936 Canadian-born mothers contributed the main portion, 108,885 births; British-born mothers were still second with the diminished total of 14,731 births and United States-born mothers a low third, 7,661. Of the other foreign-born mothers, Poland, having the least percentage loss over the period, now precedes Russia and Austria.

Apart from births to Canadian-born mothers the general trend in the yearly number of births over the sixteen-year period was definitely upward to 1930 and 1931 and from then on showed a remarkable decrease. This corresponds, to a large extent, with the flow of immigration for the period. Hungary, beginning with 409 births in 1921, scarcely held its own till 1925, showed marked yearly increases from then to 1930 when it registered 1,089 and in the next five years declined to 604; Hungarian immigration for the first five-year period was 1,500, for the second, 26,000 and for the last five-year period, 4,700. German births were 631 in 1921, fell to 528 in 1924 and then rose to 1,014 in 1931 but in 1936 scarcely bettered their 1921 figure; there were 4,500 German immigrants in the first five-year period, 60,900 from 1926 to 1930 but in the last period only 10,000. Others that reached their peak in either 1930 or 1931 were Finland, Poland and Russia.

Statement LXIX shows also crude rates for the average of the years 1921-22 and 1931-32 computed on the female population for the various birthplaces. As the masculinity of the population from the different birthplaces varies greatly, it was felt that the rates computed on female population would give a truer picture of the fertility. The masculinity for 1931 varies from 103 males per 100 females in the Canadian-born population to 2,785 males per 100 females born in China. The latter is, of course, extreme and the next highest is for those born in Denmark, 251 males per 100 females.

The 1931-32 birth rate for German-born females is the only one showing an increase over 1921-22. No doubt this is partly due to misrepresentation of birthplace in the 1921 Census. The female population born in Austria, France and the United States are the only ones showing a decrease over the ten-year period. However, these three as well as the other birthplaces, with the above-mentioned exception of Germany, show decreased birth rates for 1931-32. The percentage decrease ranges from 8·0 in the case of Japanese-born females to 58·4 for those born in China. This seems quite plausible when one considers the diminishing of immigration and the ageing of the population.

In 1921-22 women born in China had a fertility rate of 267·49, women born in Italy, 194·46. Other birthplaces with high fertility rates were: Japan, 179·00; Austria, 174·49; Poland, 151·69; Hungary, 124·25; Belgium, 104·09. In 1931-32 women born in Japan had a fertility rate of 164·64; Austria, 154·18; Hungary, 112·21; China, 111·37; Italy, 100·16. Any comparison between the fertility rates for women of the various birthplaces would be fruitless because of the marked differences in the proportion of women 15-49 to all women. As in 1921 birthplace was not classified by sex and age, this figure can only be obtained for the population of 1931 and is shown in Statement LXX.

Considering the foreign born we find that in 1931 the percentage of women 15-49 to all women was 88·9 for women born in Japan, 82·0 for Finland, 78·0 for Italy, 77·8 for China and 75·2 for Austria. This proportion dropped through the different birthplaces to 62·3 p.c. for Sweden and 57·4 p.c. for Germany.

It will be seen that the fertility rates of Canadian-born women are low. However, a comparison of the fertility rates both of the Canadian born and of the population as a whole with the fertility rates of immigrants is unsound owing to an unusual factor which has nothing to do with true fertility rates. Children born to other than Canadian-born mothers would automatically appear in the denominator of the equation for the Canadian fertility rate and the higher

LXX.—PERCENTAGE FEMALES 15-49 YEARS OF AGE FROM ALL FEMALES, BY BIRTHPLACE,
REGISTRATION AREA, CANADA AND QUEBEC, 1931

Birthplace	P.C. of All Females in the Age Group 15-49 Years		
	Registration Area	Canada	Quebec
All birthplaces..	51·8	51·4	50·4
Canada..	46·2	47·0	48·6
British Isles and Possessions............................	66·4	66·7	69·0
Austria...	75·2	75·6	79·8
Belgium...	73·0	72·5	70·3
Denmark..	68·3	69·9	84·9
Finland...	82·0	83·1	93·1
France..	64·9	63·8	61·7
Germany..	57·4	58·2	69·4
Holland...	68·2	68·3	70·4
Hungary..	69·8	70·3	74·8
Italy..	78·0	76·9	73·3
Norway...	62·6	63·1	81·4
Poland..	74·0	74·4	79·0
Roumania...	74·0	74·1	74·6
Russia..	69·9	70·7	74·8
Sweden...	62·3	62·5	69·0
China...	77·8	77·6	75·0
Japan...	88·9	88·9	42·9
United States...	71·2	70·8	63·7

the fertility rate for foreign-born females the lower the fertility rates for Canadian-born would
appear.   In 1921-22 the fertility rate for Canadian-born females was 41·16 and in 1931-32, 37·42.
The proportion of Canadian-born women 15-49 to all women was 46·2 p.c. for 1931.

**Trend in Births, by Birthplace of Mother, Canada, 1926-1936, and Crude Rates,
1931-1932.**—Statement LXXI gives for Canada, 1926-36, the same set of figures as Statement
LXIX gives for the Registration Area. Births to Canadian-born women in 1926 formed 71·8 p.c. of
the total births and with slight yearly increases this proportion rose to 81·6 p.c. in 1936. While
the absolute figures for all birthplaces fell from 232,750 at the beginning of the period to 220,371
at the end, the births to Canadian-born mothers rose from 166,999 to 179,757. Births to British-
born females contributed 13·0 p.c. in 1926 and then decreased gradually, reaching 7·3 p.c. in
1936.   Foreign-born had a larger percentage at both the beginning and end of the period than
that of British-born and decreased only 31·6 p.c. while British-born decreased 46·9 p.c. over the
whole period.

Births to females born in Denmark increased in the first four years of the period but then
gradually declined until 1936 when there were 230, a number slightly higher than in 1926. Other
birthplaces showing increased numbers in 1936 were Germany, China, Italy, Hungary and Poland. As in
the case of the Registration Area, several countries showed increases up to the period 1930-31
and every birthplace showed a decline from that period on to the end of the decade.

Japan with the favourable proportion of its women between the ages 15 and 49, 88·9 p.c.,
had a birth rate of 164·37. The proportion of women 15-49 to all women born in Austria was
also high; the country does not rank next to Japan, yet we find their fertility rate next in size,
143·40. Other countries whose favourable proportion of women in the child-bearing ages was
reflected in high fertility rates were Hungary, China, Italy and Poland. Their rates were 111·53,
107·42, 98·19 and 82·30, respectively. Finland, second only to Japan with 83·1 p.c. of all
women in the age group 15-49, had this advantage'offset by having only 63·5 p.c. of all women
married. The birth rate for Finland was 53·47. The only foreign-born women whose birth
rate did not exceed that for all birthplaces were those born in France. Their rate, 39·80, was
even lower than the rate for Canadian-born women. The rate for British-born, 45·31, was
slightly higher than that for Canadian-born and about 4 p.c. less than that for all birthplaces.

LXXI.—NUMBER AND INDEX (BASED ON 1926) OF LIVE BIRTHS, BY BIRTHPLACE OF MOTHER, CANADA (NINE PROVINCES), 1926-1936, WITH CRUDE BIRTH RATES FOR THE AVERAGE OF 1931-1932.

BIRTHS

Year	All Birth-places	Canada	British Isles and British Possessions	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland	Roumania	Russia	Sweden	China	Japan	United States
1926	232,750	166,999	30,230	2,938	472	193	471	464	635	239	460	1,946	618	3,714	1,192	4,620	666	273	779	13,394
1927	234,188	169,178	29,567	2,672	521	230	535	461	668	256	561	1,966	678	3,736	1,055	4,729	603	251	799	13,074
1928	236,737	171,027	27,922	2,701	541	286	564	392	764	319	659	1,948	653	3,996	1,151	4,788	617	205	848	13,036
1929	235,415	170,442	28,641	2,634	510	357	623	410	870	316	842	1,751	686	4,635	1,033	4,760	588	191	803	11,873
1930	243,495	176,235	29,144	2,580	515	396	704	386	998	324	1,209	1,766	721	5,297	1,111	4,939	635	184	781	11,366
1931	240,473	177,197	26,409	2,333	475	366	706	311	1,056	300	1,128	1,618	685	5,856	1,003	4,614	586	169	657	10,842
1932	235,066	177,556	24,032	2,050	443	359	572	315	995	269	910	1,179	542	4,998	995	4,195	513	147	593	9,959
1933	222,868	170,978	21,078	1,797	376	331	532	264	844	261	910	1,179	542	4,998	538	3,359	451	132	536	9,349
1934	221,308	173,647	19,137	1,603	386	291	509	236	870	241	864	1,045	462	4,485	713	3,641	376	113	433	8,886
1935	221,451	177,077	17,727	1,390	360	452	460	219	833	230	787	1,009	402	4,254	630	3,373	366	102	433	8,531
1936	220,371	179,757	16,060	1,182	307	230	428	217	678	190	673	868	394	3,987	585	2,968	307	99	406	8,531
Crude birth rates[1]— 1931-32	47·36	44·21	45·31	143·40	62·41	71·62	53·47	39·80	65·19	73·68	111·53	98·19	62·89	82·30	62·59	76·20	52·02	107·42	164·37	65·22

INDEX OF BIRTHS

Year	All Birth-places	Canada	British Isles and British Possessions	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland	Roumania	Russia	Sweden	China	Japan	United States
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1927	100·6	101·3	97·8	90·9	110·4	119·2	113·6	99·4	105·2	104·6	122·0	101·0	109·7	100·6	88·5	102·4	90·5	91·9	102·6	97·6
1928	101·7	102·4	97·1	91·9	114·6	148·2	119·7	84·5	120·3	133·5	143·3	100·1	105·7	107·6	96·6	103·6	92·6	75·1	108·9	97·3
1929	101·1	102·1	94·7	89·7	108·1	185·0	132·3	88·4	137·0	132·2	183·0	90·0	111·0	124·8	86·7	103·0	91·3	77·3	109·6	98·9
1930	104·6	105·5	96·4	87·8	109·1	205·2	149·5	83·2	157·2	135·6	262·8	90·8	116·7	142·6	93·2	106·9	91·3	70·0	103·1	88·6
1931	103·3	106·1	87·4	79·4	100·6	189·6	149·9	67·0	166·3	125·5	245·2	83·1	110·8	157·7	84·1	99·9	88·0	61·9	100·3	84·9
1932	101·0	106·3	79·5	69·1	94·3	186·0	121·4	67·9	132·1	112·6	232·7	71·8	106·5	153·0	83·7	90·8	77·0	53·8	84·3	80·9
1933	95·8	102·4	69·7	61·2	79·7	171·5	113·0	56·9	132·9	109·2	197·6	60·6	87·7	134·6	70·3	83·1	67·7	48·4	74·6	74·4
1934	95·1	104·0	63·3	54·6	76·4	150·8	108·1	50·9	137·0	100·8	187·8	53·7	74·8	120·8	59·8	78·8	56·5	41·4	67·5	69·8
1935	95·1	106·0	58·6	47·3	76·3	234·1	97·7	47·2	131·1	96·2	171·1	51·8	65·0	114·5	52·9	73·0	55·0	37·4	55·8	66·3
1936	94·7	107·6	53·1	40·2	65·0	119·2	90·9	46·8	106·8	79·5	146·3	44·6	63·8	107·4	49·1	64·2	46·1	32·6	52·1	63·7

[1] See footnote 1 to Statement LVI.

Canadian-Born Mothers by Province of Birth.—Statement LXXII shows by the province of their birth the Canadian-born mothers appearing in the annual birth statistics. It is interesting to note that only three provinces, Prince Edward Island, Quebec and Ontario showed decreases between 1926 and 1936; Prince Edward Island had a small decrease of 68 births, Ontario 561 and Quebec the largest decrease, 3,845. The other six provinces showed increases ranging from 217 births in New Brunswick to 7,935 in Saskatchewan. The increases in Saskatchewan and Alberta are especially noteworthy, the number of mothers born in these provinces having almost tripled over the period. In 1926 the mothers born in Saskatchewan numbered 4,087 and mothers born in Alberta, 2,853; ten years later these figures had changed to 12,022 for Saskatchewan and 7,922 for Alberta.

LXXII.—BIRTHS TO CANADIAN-BORN MOTHERS, BY PROVINCE OF BIRTH OF MOTHER, CANADA, 1926-1936

Year	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1926	166,999	2,108	10,465	9,698	77,439	47,890	8,408	4,087	2,853	2,220
1927	169,178	2,036	10,546	9,825	78,668	48,001	8,758	4,658	3,182	2,292
1928	171,027	2,099	10,348	9,484	79,386	48,019	9,227	5,308	3,512	2,467
1929	170,442	1,954	10,152	9,401	78,051	47,046	9,511	6,113	4,215	2,700
1930	176,235	1,982	10,675	9,816	79,944	48,683	9,960	6,949	4,701	2,947
1931	177,197	2,103	10,815	9,861	80,053	48,253	10,098	7,536	5,104	2,745
1932	177,556	2,172	10,964	9,921	79,335	47,180	10,554	8,485	5,406	3,207
1933	170,978	2,112	10,470	9,299	74,095	46,097	10,293	9,121	5,927	3,279
1934	173,647	2,020	10,811	9,487	73,956	45,872	10,780	10,141	6,646	3,654
1935	177,077	2,098	10,910	9,849	73,354	47,029	11,152	11,143	7,385	3,879
1936	179,757	2,040	11,088	9,915	73,594	47,329	11,265	12,022	7,922	4,320

For the province of Quebec absolute figures for live births, 1926-36 with an index based on 1926 and crude rates for the average of 1931-32 are shown in Statement LXXIII.

Births to Canadian-born women comprised 91·0 p.c. of all births for the province while for Canada the percentage was only 71·8. However, over the decade this percentage increased by 10 in the case of Canada and by only 3 in Quebec. In 1926 British- and foreign-born females in Quebec contributed the small percentages of 2·8 and 5·2, respectively and the 1936 percentages were even smaller. United States-born females contributed a large proportion of the births to foreign-born, 2,491 of the 4,234 in 1936 and 870 of the 2,176 in 1936. Next to the United States-born females were those born in Italy, Russia and Poland with 468, 467 and 208 births respectively in 1926. In 1936 the order was changed to Poland 351, Russia 275 and Italy 164.

Contrary to what was found when considering the birth rates for Canada by birthplace of mother, in Quebec only 3 of the foreign birthplaces, Hungary, Italy and Poland, had rates higher than that for the Canadian born, 58·08. The rate for the United States-born was slightly lower, 53·07, and the rate for British-born, 37·42 was followed by Holland with 32·96, Russia with 31·41, Sweden with 28·16, Austria with 26·16 and France, the lowest, with 23·68.

Average Order of Birth by Birthplace.—Statement LXXIV, an extract from Table 13, Part III, page 158, shows the average number of children (1) born alive, (2) now living (i.e., at date of report of latest birth), (3) born dead and (4) born alive or dead to mothers of stated birthplaces in 1930.

LXXIII.—NUMBER AND INDEX (BASED ON 1926) OF LIVE BIRTHS, BY BIRTHPLACE OF MOTHER, QUEBEC, 1926-1936, WITH CRUDE BIRTH RATES FOR THE AVERAGE OF 1931-1932

Year	All Birth-places	Canada	British Isles and British Possessions	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland	Roumania	Russia	Sweden	China	Japan	United States
								BIRTHS												
1926	82,155	74,750	2,288	50	54	2	14	116	16	10	13	468	3	208	136	467	3	6	—	2.491
1927	82,064	75,735	2,176	32	61	5	21	100	18	10	17	464	6	174	138	381	3	6	—	2.495
1928	83,621	76,464	2,081	44	74	6	17	89	16	13	39	461	10	192	108	373	4	5	—	2.310
1929	81,380	74,834	2,110	31	48	15	25	80	23	8	59	427	6	280	177	343	8	5	—	1.582
1930	83,625	76,671	2,291	35	46	18	46	87	34	11	120	389	17	315	141	318	9	5	—	1.518
1931	83,606	76,917	2,160	38	54	22	68	69	42	4	98	382	13	349	117	283	9	4	—	1.449
1932	82,216	76,239	1,950	29	49	23	49	54	30	9	117	385	14	425	142	288	9	4	—	1.324
1933	76,920	71,342	1,734	31	36	28	32	51	33	9	85	258	7	397	119	285	12	7	1	1.116
1934	76,432	71,186	1,595	30	25	24	30	51	40	6	55	248	8	335	106	320	6	4	1	1.035
1935	75,267	70,546	1,454	34	31	17	34	45	33	1	70	204	6	359	87	274	3	7	—	966
1936	75,265	70,872	1,329	34	25	17	25	45	28	2	69	164	11	351	71	275	4	5	1	870
Crude birth rates—																				
1931-32	57·75	58·06	37·42	26·16	35·70	47·48	47·82	23·68	40·04	32·96	105·59	91·83	50·83	68·91	39·94	31·41	28·16	48·62	—	53·07
								INDEX OF BIRTHS												
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	—	100·0
1927	100·1	101·3	95·1	64·0	113·0	250·0	150·0	86·2	112·5	100·0	130·8	99·1	200·0	83·7	86·8	81·6	100·0	100·0	—	100·2
1928	101·8	102·3	91·0	88·0	137·0	300·0	121·4	73·3	100·0	130·0	98·5	333·3	92·3	79·4	79·9	133·3	83·3	—		92·7
1929	99·0	100·1	92·2	62·0	88·9	750·0	178·6	69·0	143·8	80·0	453·8	91·2	200·0	134·6	86·0	73·9	266·7	100·0	—	63·5
1930	101·8	102·6	100·1	70·0	85·2	900·0	328·6	75·0	212·5	110·0	923·1	83·1	566·7	151·4	105·7	64·9	300·0	83·3	—	60·9
1931	101·8	102·0	94·5	76·0	100·0	1100·0	455·7	59·5	262·5	40·0	753·8	81·6	433·3	167·5	86·0	60·5	300·0	66·7	—	59·0
1932	100·1	102·0	85·2	58·0	90·7	1150·0	350·0	55·2	312·5	90·0	900·0	60·9	466·7	204·3	104·4	61·7	266·7	66·7	—	53·2
1933	93·6	95·5	75·8	62·0	66·7	1400·0	371·4	44·0	218·8	90·0	653·8	55·1	233·3	190·9	87·5	61·0	400·0	116·7	—	44·8
1934	93·0	95·2	69·8	60·0	64·8	1200·0	357·1	44·0	250·0	60·0	653·8	53·0	266·7	161·1	77·9	69·8	200·0	66·7	—	41·1
1935	91·6	94·4	64·0	68·0	46·3	850·0	242·9	38·6	206·3	10·0	538·5	51·0	200·0	172·6	64·0	58·7	100·0	116·7	—	38·8
1936	91·6	94·8	58·1	68·0	46·3	850·0	178·6	37·1	175·0	20·0	530·8	35·0	366·7	168·8	52·2	58·9	133·3	83·3	—	34·9

¹ See footnote 1 to Statement LVI.

LXXIV.—AVERAGE NUMBER OF CHILDREN (1) BORN ALIVE, (2) NOW LIVING, (3) BORN DEAD, (4) BORN ALIVE OR DEAD, BY BIRTHPLACE OF MOTHER, CANADA, 1930

Birthplace of Mother	Average Number of Children			
	Born Alive	Now Living	Born Dead	Born Alive or Dead
All birthplaces..	3·92	3·47	0·10	4·02
Canada..	4·08	3·57	0·10	4·18
Prince Edward Island..............................	4·13	3·73	0·08	4·21
Nova Scotia..	3·84	3·48	0·12	3·96
New Brunswick....................................	4·40	3·82	0·11	4·50
Quebec..	4·93	4·20	0·09	5·02
Ontario...	3·24	2·98	0·12	3·35
Manitoba...	3·25	2·96	0·10	3·34
Saskatchewan......................................	2·71	2·44	0·06	2·78
Alberta...	2·60	2·34	0·06	2·66
British Columbia..................................	2·60	2·31	0·05	2·66
British Isles..	3·00	2·79	0·11	3·10
England..	3·11	2·89	0·11	3·21
Ireland...	2·92	2·72	0·11	3·03
Scotland...	2·76	2·58	0·10	2·87
Wales...	3·06	2·79	0·11	3·17
British Possessions..................................	3·74	3·32	0·12	3·86
Newfoundland......................................	4·10	3·61	0·12	4·22
Europe..	3·88	3·45	0·11	3·98
Austria...	5·31	4·66	0·13	5·44
Belgium..	3·25	2·94	0·09	3·34
Denmark...	2·62	2·39	0·12	2·73
Finland...	2·20	2·02	0·10	2·30
France..	4·10	3·75	0·11	4·20
Germany...	2·91	2·69	0·09	3·00
Holland..	3·23	3·05	0·07	3·30
Hungary..	3·50	3·02	0·09	3·60
Italy..	4·09	3·60	0·13	4·22
Norway...	3·40	3·20	0·10	3·50
Denmark...	3·61	3·22	0·10	3·71
Poland..	4·53	3·89	0·16	4·68
Roumania..	4·35	3·88	0·10	4·44
Russia..	3·68	3·41	0·08	3·76
Asia...	3·96	3·68	0·07	4·03
China...	5·10	4·85	0·04	5·13
Japan...	3·65	3·43	0·07	3·72
United States...	3·82	3·49	0·11	3·93

The average for children born alive ranges from 5·31 for mothers born in Austria to 2·20 for mothers born in Finland giving a rate of 3·92 for all birthplaces. Mothers born in China with an average of 5·10 children, in Quebec with 4·93, in Roumania with 4·53 and in the province of New Brunswick with 4·40 are among the highest. Alberta and British Columbia are quite low with 2·60; Denmark with 2·62, Saskatchewan with 2·71 and Scotland with 2·76 are next. For children now living, the order of birthplaces of mothers is practically the same as for children born alive except that China and Austria are interchanged; the highest average was 4·85, the lowest 2·02. The average number of children born dead for all birthplaces is 0·10. Below this we find five provinces of Canada, five countries of Europe and Asia as a whole, as well as China and Japan individually.

The averages in Statement LXXIV, adjusted for differences in age distribution of mothers, are shown in Statement LXXV.

LXXV.—AVERAGE NUMBER OF CHILDREN (1) BORN ALIVE, (2) NOW LIVING, (3) BORN DEAD, (4) BORN ALIVE OR DEAD, BY BIRTHPLACE OF MOTHER, ADJUSTED FOR DIFFERENCES IN AGE DISTRIBUTION OF MOTHERS, AND SHOWING THE PROPORTION OF CHILDREN NOW LIVING TO THOSE BORN ALIVE AND OF CHILDREN BORN DEAD TO THOSE BORN ALIVE OR DEAD, CANADA, 1930

Birthplace of Mother	Average Number of Children				Proportion of	
	Born Alive	Now Living	Born Dead	Born Alive or Dead	Children Now Living to Children Born Alive	Children Born Dead to Children Born Alive or Dead
All birthplaces...........................	3·92	3·47	0·10	4·02	88·52	2·49
Canada..................................	4·15	3·63	0·10	4·25	87·47	2·35
Prince Edward Island..................	3·79	3·44	0·08	3·87	90·77	2·07
Nova Scotia...........................	3·92	3·55	0·12	4·04	90·56	2·97
New Brunswick........................	4·39	3·82	0·10	4·50	87·02	2·22
Quebec...............................	4·69	4·00	0·08	4·78	85·29	1·67
Ontario..............................	3·33	3·06	0·12	3·45	91·89	3·48
Manitoba.............................	3·69	3·33	0·11	3·79	90·24	2·90
Saskatchewan........................	3·94	3·43	0·09	4·03	87·06	2·24
Alberta..............................	3·87	3·35	0·08	3·95	86·56	2·05
British Columbia.....................	3·28	2·53	0·06	3·34	86·28	1·85
British Isles...........................	2·85	2·65	0·10	2·95	92·98	3·39
England..............................	2·91	2·71	0·10	3·01	93·13	3·32
Ireland..............................	3·17	2·60	0·11	2·90	93·19	3·79
Scotland.............................	2·70	2·52	0·10	2·80	93·33	3·57
Wales...............................	2·95	2·70	0·11	3·06	91·53	3·59
British Possessions....................	3·57	3·17	0·12	3·69	88·80	3·25
Newfoundland........................	3·87	3·41	0·11	3·98	88·11	2·70
Europe.................................	3·73	3·33	0·10	3·83	89·28	2·61
Austria..............................	4·66	4·10	0·11	4·77	87·98	2·31
Belgium.............................	3·17	2·87	0·08	3·25	90·54	2·46
Denmark............................	2·73	2·49	0·11	2·85	91·21	3·86
Finland.............................	2·47	2·24	0·11	2·59	90·60	4·25
France..............................	3·09	3·37	0·09	3·75	92·08	2·46
Germany............................	2·99	2·77	0·09	3·00	92·64	2·91
Holland.............................	3·16	2·99	0·07	3·23	94·62	2·17
Hungary.............................	3·67	3·17	0·09	3·76	95·38	2·39
Italy................................	3·81	3·37	0·12	3·93	88·45	3·05
Norway.............................	2·94	2·78	0·08	3·02	94·50	2·65
Poland..............................	3·69	3·28	0·09	3·79	88·89	2·37
Roumania...........................	4·30	3·70	0·15	4·46	86·05	3·36
Russia..............................	3·98	3·56	0·09	4·07	89·45	2·21
Sweden.............................	3·29	3·05	0·06	3·36	92·71	1·79
Asia...................................	3·68	3·48	0·07	3·75	93·21	1·87
China...............................	4·26	4·06	0·03	4·29	95·31	0·70
Japan...............................	3·48	3·27	0·07	3·54	93·97	1·98
United States...........................	3·80	3·47	0·11	3·90	91·32	2·82

The highest average for children born alive is for Quebec, 4·69 (Austria with 4·66 almost equals Quebec), and the lowest is Finland with 2·47. This is a considerably narrower range than the range for the unadjusted figures which was from 5·31 to 2·20. The adjusted average for children now living show Austria highest with 4·10 and Finland lowest with 2·24. The proportion of children now living to children born alive ranges from 95 p.c. in the case of mothers born in China and Norway to 85 p.c. for those born in Quebec. This seems like a small range and suggests that there are no distinctive variations among birthplaces. The average number born dead ranges from 0·15 in the case of Roumania-born mothers to 0·03 in the case of China-born. The average number of births (born alive or dead) is highest for mothers born in Quebec, 4·78, and lowest for Finland, 2·59. The proportion of children born dead to children born alive or dead ranges from 4·25 for Finland to 0·70 for China. Other high proportions of children born

dead to all children born alive or dead are found for women born in Denmark, Ontario and the British Isles with 3·86, 3·48 and 3·39, respectively. This is perhaps contrary to expectation. On the other side of the picture we find these same birthplaces among those with higher percentages of children now living to children born alive.

The standard deviation for the average number of children born alive by individual countries of birth of mother was computed and found to be 0·58 in an average of 3·55. Compare this with the standard deviation of the average number of children born alive by racial origin of mother (page 000), 0·66 in an average of 3·80, which was considered not large. It would seem, therefore, that birthplace has no great influence on the fertility of the women of Canada. The standard deviation, of course, does not tell us definitely how much the average number of children born to a mother varies because of differences in birthplace, and without a standard with which to compare it does not tell us anything very definite. As standard deviations go, however, it seems low in itself. Furthermore, there are other features correlated with birthplace, e.g., racial origin, religion and, to some extent, region, which would be responsible for some of this standard deviation. Consequently, it would seem that birthplace per se cannot be responsible for a significant differential in fertility as measured by average number of children, especially since the figures are adjusted for differences in age of mother.

Accumulated Births.—While trends in the number of births and crude and standardized rates are the customary methods by which the fertility of the population and the changes in fertility are presented, there is another point of view that should not be overlooked. Population is a very dynamic thing even when its dynamic properties are not accentuated by migration. The fact that older people are dying off and their place taken by younger people means that the population is continually changing its content. In 1931 out of a total of 10,359,165 persons with stated ages, 2,203,774 were under the age of 10 years, i.e., born since the previous census, a proportion of one to four (neglecting the number under 10 years of age coming in through migration). If we take the Canadian-born population, there were 8,054,526 with stated ages and 2,119,703 under 10 years of age, i.e., one born since the census to every three previously living. This impresses upon our minds the extent to which the content of our population is changing and that (except for the by-no-means-complete control of the old over the actions, thought and desires of the new) we have here a state of flux that is probably more important than any one other attribute of our population. The current births enable us to give a rough measurement of this flux and were it not for the complications caused by deaths and migration they would give us a perfect measurement of this and of the additions to our population. As it is, however, it may serve a useful purpose to cast up the accumulated births over a period of years (especially ten years to compare with an inter-censal period) to see how the accumulation for this period compares with the number 11 years and under at the censuses. In order to have a more definite picture we need a calculation of the survivors of these births but here it is impossible to be exact, especially when we are calculating survivors of different sections of the population. The expectations of a life table may be used for the population as a whole with fairly satisfactory results but when this is applied to races, birthplaces and so on we are apt to go far afield. Even so, a calculation of this nature serves a useful purpose so long as it is understood that it is only a rough estimate.

Statement LXXVI below shows the accumulated births over the period 1926-36 in the nine provinces with the survivors of these by age in 1936. The latter is obtained by using life table expectations. It is important to observe the comparison of these accumulated survivors with the accumulated natural increase of the whole population over the period by which we can estimate the change in personnel.

LXXVI.—TOTAL CHILDREN BORN, 1926-1936, AND PROBABLE SURVIVORS IN 1936, BY BIRTH-
PLACE OF MOTHER, CANADA

Birthplace of Mother	Total Children Born, 1926-36	Probable Survivors in 1936
All birthplaces..	2,544,737	2,303,150
Canada...	1,910,063	1,730,822
British Isles and Possessions..	271,392	244,508
Austria...	23,860	21,463
Belgium..	4,878	4,398
Denmark...	3,298	2,979
Finland..	6,104	5,511
France...	3,675	3,309
Germany...	9,182	8,305
Holland..	2,939	2,651
Hungary...	9,168	8,293
Italy...	16,494	14,843
Norway..	6,499	5,859
Poland...	50,641	45,813
Roumania..	10,309	9,284
Russia...	46,454	41,907
Sweden..	5,728	5,155
China..	1,883	1,692
Japan..	7,467	6,724
United States..	122,332	110,394

The statement shows that out of 2,303,150 estimated survivors of the children born from
1926 to 1936 Canadian-born mothers contributed 1,730,822 or 75·2 p.c.; British-born mothers
contributed 244,508 or 10·6 p.c.; United States-born, 110,394 or 4·8 p.c.; Chinese and Japanese-
born, 8,416 or 0·4 p.c., and European-born, 179,770 or 7·8 p.c. Among the European countries,
mothers born in Poland, Russia and Austria were the main contributors with 45,813, 41,907 and
21,463 births, respectively. The birthplace of the father should also be taken into consideration
but some idea of the relationship of the two is given in the marriage statistics which show a general
correspondence of birthplace of bride and groom, e.g., in 1931 80 p.c. of the marriages gave both
parties as being of the same birthplace.

The accumulated survivors of the births in Canada give us 2,303,150 at and under the age
of 10 with a few at the age of 11. The accumulated natural increase of the population from 1926
to 1936 was 1,375,052. The accumulated survivors of the births over the period are, roughly,
the number who have come into the population; the amount by which they exceed the natural
increase is, roughly, the number who have gone out of the population by death or emigration.
The two together represent the total change in the personnel, viz., 3,678,202 or about one-third
of the population.

Trend in Births Associated with Migration.—Statement LXXVII shows the births
in Canada as a whole to (1) parents born in the same province as the child, (2) all other parents
appearing in the births statistics of the given year as principals, for the purpose of showing the
trend in the ratio of births associated with migration to other births. While the total births in
the Registration Area at the end of the period 1921-36 showed a decided decrease from the total
births at the beginning, the number of births where parents and child were all born in the same
province showed a substantial gain, 7,762, so that the full decrease was in births associated
with migration. The same is true for Canada over the period 1926-36 but in Quebec, while
total births decreased by 8,924, the births where parents were born in the same province as the
child also decreased some 2,229 and births associated with migration made up the remaining
decrease, 6,065.

LXXVII—TOTAL BIRTHS, BIRTHS TO PARENTS BORN IN THE SAME PROVINCE AS THE CHILD
AND OTHER BIRTHS, WITH PROPORTION BIRTHS TO MIGRATING PARENTS FORM OF
ALL BIRTHS, REGISTRATION AREA, 1921-1936, CANADA AND QUEBEC, 1926-1936

| Year | Births | | | Proportion Births to Migrating Parents Form of Total Births (Col. 3 ÷ Col. 1) (4) |
	Total (1)	Both Parents Born in Same Province as Child (2)	Other (3)	
Registration Area—				
1921	168,979	55,939	113,040	66·90
1922	160,823	55,541	105,282	65·46
1923	153,489	55,022	98,467	64·15
1924	153,880	56,551	97,329	63·57
1925	150,809	55,871	94,938	62·95
1926	145,519	54,535	90,984	62·52
1927	146,728	54,943	91,785	62·55
1928	148,275	55,006	93,269	62·90
1929	148,878	54,876	94,002	63·14
1930	154,330	57,587	96,743	62·69
1931	150,952	57,927	93,025	61·63
1932	147,423	58,797	88,626	60·12
1933	139,955	57,879	82,076	58·64
1934	141,255	59,905	79,351	56·95
1935	140,346	62,267	78,079	55·63
1936	138,922	63,601	75,321	54·22
Canada—				
1926	226,629	121,663	104,966	46·32
1927	227,473	123,170	104,303	45·85
1928	228,477	123,949	105,528	45·99
1929	227,899	121,066	106,831	46·00
1930	235,436	127,997	107,439	45·63
1931	232,108	128,676	103,432	44·56
1932	227,306	128,398	98,908	43·40
1933	214,442	123,310	91,132	42·50
1934	213,233	125,316	87,917	41·23
1935	213,107	126,677	86,430	40·56
1936	211,738	128,500	83,238	39·31
Quebec—				
1926	81,110	67,128	13,982	17·24
1927	80,745	68,227	12,518	15·50
1928	81,202	68,943	12,259	15·10
1929	79,021	68,192	10,829	13·70
1930	81,106	70,410	10,696	13·19
1931	81,150	70,749	10,401	12·82
1932	79,753	69,801	9,952	12·61
1933	74,487	65,431	9,056	12·16
1934	74,997	66,411	8,586	11·72
1935	72,761	64,410	8,351	11·48
1936	72,816	64,809	7,917	10·87

It will be seen that the ratio of children born to migrating parents has declined in the case of the Registration Area from 66·9 in 1921 to 54·2 in 1936 and in the case of the nine provinces from 46·3 in 1926 to 39·3 in 1936. Between the years 1921 and 1928 in the Registration Area the proportion of births associated with migration decreased 4·0 p.c. and for the seven-year period 1929-36 the proportion decreased 8·92 p.c. It would appear to be an accelerating process. In Canada over the first five-year period the decrease was 1·76 and over the last five-year period, 5·25. However, in Quebec where migration played a much smaller part, from 17·24 p.c. of all births in 1926 the proportion fell to 12·82 p.c. in 1931 and slowed up over the last five-year period to 10·87 p.c. in 1936. This is probably the best measure that can be obtained of the rate at which our population is becoming indigenous and static although, of course, it leaves out of account migration within the province and, consequently, does not fully measure the contribution of migrants to the births.

Specific Fertility Rates for Women of All Conjugal Conditions, by Birthplace, 1930-1932.—As has already been stated, no classification was made of the sex and age distribution of the population by birthplace for the Census of 1921. This classification was made, however, for the Census of 1931. Taking advantage of this data, specific fertility rates have been computed for the three-year period 1930-32 which centres around the date of the 1931 Census. From these specific fertility rates, total fertility rates have been computed and both are shown in Statement LXXVIII.

LXXVIII.—SPECIFIC FERTILITY RATES¹ OF WOMEN 15-49 YEARS OF AGE OF ALL CONJUGAL CONDITIONS, BY AGES AND BIRTHPLACE OF MOTHER, WITH TOTAL FERTILITY RATES³, BY BIRTHPLACE, OF MOTHER, CANADA, 1930-1932

Birthplace of Mother	\-\- 15-19	\-\- 20-24	\-\- 25-29	\-\- 30-34	\-\- 35-39	\-\- 40-44	\-\- 45-49	Total Fertility Rates
All birthplaces	29.5	136.7	174.4	144.9	103.2	44.8	5.3	3.19
Canada	28.0	132.2	178.1	154.0	114.4	51.6	6.1	3.33
Prince Edward Island	28.5	131.0	172.4	161.1	115.1	48.9	4.3	3.31
Nova Scotia	43.4	147.4	162.3	135.8	100.7	44.2	5.0	3.19
New Brunswick	40.7	152.1	190.6	164.9	122.1	60.3	7.6	3.69
Quebec	21.0	142.3	223.3	209.0	170.9	81.8	10.6	4.29
Ontario	32.1	116.8	135.8	109.3	71.8	28.5	2.6	2.43
Manitoba	25.0	120.5	158.8	134.3	95.9	49.1	6.6	2.95
Saskatchewan	27.9	142.1	180.2	152.3	110.4	62.9	14.8	3.45
Alberta	29.6	140.4	182.8	154.7	113.6	57.7	13.8	3.49
British Columbia	20.6	94.4	118.0	92.2	59.7	33.1	7.2	2.13
British Isles	35.5	127.8	139.3	105.6	67.3	24.8	2.5	2.51
England	36.2	126.0	136.6	102.1	66.8	25.3	2.7	2.48
Ireland	33.9	139.6	156.8	120.8	73.6	25.3	2.1	2.76
Scotland	32.5	125.9	138.6	109.2	68.6	22.9	2.5	2.50
Wales	5.1	159.8	164.1	124.4	73.9	35.2	1.1	2.82
British Poss.	37.8	148.7	181.4	133.1	91.3	35.0	5.3	3.16
Newfoundland	44.0	179.9	212.5	160.0	117.7	46.5	7.0	3.84
Europe	50.4	173.2	189.9	148.4	104.4	46.4	7.6	3.60
Austria	124.0	318.9	320.0	268.0	204.1	94.4	16.8	6.73
Belgium	67.0	177.7	147.6	110.4	78.4	33.2	6.0	3.11
Denmark	40.6	155.9	171.0	131.0	83.6	38.0	—	3.09
Finland	47.1	100.9	88.0	74.7	44.3	22.2	4.4	1.96
France	21.7	127.5	131.9	95.5	74.0	27.7	3.2	2.41
Germany	52.0	183.5	186.2	131.4	86.5	46.6	4.3	3.45
Holland	29.9	167.2	200.4	149.5	115.7	44.8	6.1	3.57
Hungary	101.0	252.5	237.3	168.0	132.1	58.3	12.2	4.81
Italy	80.5	245.0	235.0	180.9	138.4	58.0	8.3	4.72
Norway	40.4	165.7	184.5	144.8	114.8	50.8	8.4	3.55
Poland	43.3	157.9	180.7	138.0	95.2	36.7	7.6	3.25
Roumania	58.8	154.4	159.1	106.3	76.8	33.3	5.4	2.97
Russia	31.6	162.8	200.7	170.1	115.3	53.9	8.2	3.71
Sweden	62.0	154.5	163.5	127.5	98.4	35.6	6.6	3.24
Asia	59.8	267.0	254.8	205.4	147.2	64.8	11.2	5.05
China	9.0	142.0	220.1	232.2	208.1	88.4	28.8	4.02
Japan	135.8	370.5	295.7	218.1	156.0	78.1	10.4	6.33
United States	47.1	156.8	162.0	122.9	83.0	37.1	3.6	3.06

¹ Rates per 1,000 women of age and birthplace specified.
² For method of calculation, see page 82.

Considering first the specific rates for Canadian-born women, it will be observed that while the rates for the two youngest age groups are below those for "all birthplaces", in the group 25-29 the rate for Canadian women is higher and becomes proportionately higher and higher in each consecutive age group. Among the provinces of Canada there are only two that differ very much from the rate for Canadian-born women. These are Quebec, which is considerably higher in all but the 15-19 age group, and British Columbia, which is considerably lower in all groups except the oldest.

The women born in the British Isles, with one exception, Wales, have higher specific rates than those of all birthplaces in the age group 15-19; but in all the groups over 20 years their rates are lower with two exceptions, both in the age group 20-24. Newfoundland shows higher rates in all groups.

Among the European countries, Hungary and Austria show high specific fertility rates throughout all age groups while Finland and France show comparatively low ones. France is the only country lower than average in all age groups. The specific fertility rates of women born in Asia as a whole, China and Japan are higher than for "all birthplaces" (except China in the age group 15-19) and in most cases considerably so. However, it must be remembered that these rates result from small female population and a small number of births. Specific fertility rates for women born in the United States are slightly better than the average in the two young age groups and slightly lower in the other five age groups. This is just the reverse of the rates for Canadian-born women.

Total Fertility Rates, by Birthplace, 1930-1932.—Turning now to the total fertility rate (the number of children born to a woman passing through the whole child-bearing period), we find a rate of 3·19 children for all women in Canada. This varies through the individual birthplaces from 6·73 children for women born in Austria to 1·96 children for women born in Finland (Statement LXXVIII).

While the rates for women born in Canada as a whole and six of the provinces are higher than the rate for "all birthplaces"—Quebec being the highest with a rate of 4·29—women born in Ontario, Manitoba and British Columbia are lower. The last-named province is the lowest with a rate of 2·19 children. Foreign birthplaces whose women have a higher rate than that of Quebec are Austria with 6·73, Japan with 6·33, Asia as a whole with 5·05, Hungary with 4·81, Italy with 4·72 and China with 4·62. The birthplaces with the lowest fertility rates are Finland and British Columbia; next are France with 2·41, Ontario and England with 2·48, Scotland with 2·50, the British Isles as a whole with 2·51, Ireland with 2·76, Wales with 2·82, Manitoba with 2·95 and Roumania with 2·97.

Conclusions.—Some of the important features brought out in this chapter are: (1) there was a definite increase in the proportion of children born to Canadian-born parents; (2) birthplace has no significant influence on the fertility of women as measured by the average number of children; (3) although 13 out of 100 estimated survivors of the births over the period 1926-36 were to foreign-born mothers and 39 out of 100 births in Canada were still associated with migration, the births associated with migration decreased continually and rapidly over the period 1926-36; (4) the rapid decrease in births associated with migration indicates that our population is fast becoming static. The consequences of this are difficult to forecast. From one point of view it should mean that the population is apt to become more attached to home life and probably grow less sporadically than it has done in the past thirty years. Again, since we know that in the immediate past a very large part of the population represented different countries, this rapid approach to indigenuity indicates that this differentiation in birthplace has not proved as serious a barrier to intermarriage as seemed probable in the early part of the period. However, there may be other points of view, including the possibility that the tendency to become static is merely a cyclical matter due to depressed economic conditions and also that a static condition may be, partly at least, responsible for the decline in births.

CHAPTER VII

REGIONAL DIFFERENCES IN FERTILITY

Introduction.—The value for Canada or any large country as a whole of a statistic such as crude birth rate is manifestly limited. It is an average from which, knowing the size of the population, the total number of births may be calculated; also, this average for the whole country in one year can be compared with that in another. But in a country as large, from point of view of geographical area, as Canada, a rate like this cannot be compared with a rate in another and smaller country or a country with a more homogeneous population. Furthermore, this average rate has no meaning unless it is representative of the birth rates of the different sections of the country, so that the general rate may be said to be typical of the individual areas or a large number of them. Conceivably, the rates of the individual regions of Canada tend to settle down to or stabilize at this central point; if not, i.e., if the individual rates are independent, there is no meaning to the general rate. It follows that it is of first importance to examine the birth rates of the different types of regions of Canada. The types of regions that will be examined in this chapter are: (1) urban municipalities grouped by size; (2) counties and census divisions exclusive of cities and towns of 5,000 and over; (3) the 220 counties or census divisions and a few subdivisions into which the census divisions are divided (227 in all). Obviously, before a thorough study of the incidences of birth rates in this threefold classification could be made, it was necessary to obtain figures of births by place of residence of mothers in contradistinction to births by place of occurrence. These, tabulated for the first time for the purpose of this monograph, are shown in Tables 14 and 15, Part III, pages 164 and 170.

Provincial Birth Rates by Size Groups of Urban Municipalities and "Remaining Parts".—In Table 14, Part III, page 164, the births by residence of mother for each city, town or "remaining part" of county or census division have been averaged for the three years 1930-32 and crude birth rates have been computed on the census population as of June 1, 1931.

Standardized* birth rates have also been computed for each of these units in the following manner:—

(1) Expected birth rates have been computed by listing the female population of each unit between the 15th and 50th birthday by five-year age groups and applying to each age group the average birth rate for that group obtaining in the Dominion as a whole over the three years 1930-32, then summing the births thus computed for the various age groups and dividing the sum by the total population of the unit.

(2) The standardized rates have been computed from the crude and expected rates by the following equation:—

$$\text{S.R. (for a given unit)} = \frac{\text{E.R. for Canada}}{\text{E.R. for the given unit}} \times \text{C.R. for the given unit}$$

where S.R. means standardized rate, E.R. means expected rate and C.R. means crude rate.

Statement LXXIX presents a summary of Table 14 for size groups of urban municipalities classified according to population and for the "remaining parts". For this purpose the following groups have been distinguished:—

    (a) cities of 100,000 population and over;
    (b) cities of 40,000-100,000 population;
    (c) cities and towns of 10,000-40,000 population;
    (d) cities and towns of 5,000-10,000 population;
    (e) "remaining parts", consisting of towns under 5,000 population, all villages and all rural parts.

In addition to the grouping for Canada as a whole the figures for these different classes are also summarized for the Maritime Provinces as a unit, Quebec, Ontario, the Prairie Provinces as a unit and British Columbia. In these regional groups, however, the figures for cities of 40,000 and over are given singly without class totals.

<hr>

*Standardized for age.

122

LXXIX.—POPULATION, BIRTHS AND CRUDE, EXPECTED AND STANDARDIZED BIRTH RATES[3], BY SIZE GROUPS OF URBAN MUNICIPALITIES AND "REMAINING PARTS," CANADA AND PROVINCES, 1931

Item	Population, Census of 1931	Average of Live Births by Residence of Mother, 1930-32	Birth Rates per 1,000 Population		
			Crude	Expected	Standardized[4]
Canada[1]	10,362,833	239,876	23·1	23·0	23·1
Cities of 100,000 and over	2,328,175	48,381	20·8	27·9	17·1
Cities of 40,000-100,000	561,248	11,846	21·1	27·5	17·7
Cities and towns of 10,000-40,000	953,692	22,573	23·3	25·7	20·8
Cities and towns of 5,000-10,000	454,450	11,238	24·7	24·1	23·6
Remaining parts[2]	6,035,268	145,540	24·1	20·2	27·5
Maritime provinces	1,009,103	24,089	23·9	20·8	26·4
Prince Edward Island	88,038	1,888	21·4	19·4	25·4
Nova Scotia	512,846	11,526	22·5	20·8	24·8
New Brunswick	408,219	10,677	26·2	21·1	28·5
Cities of 40,000 and over—					
Halifax, N.S.	59,275	1,410	23·8	28·2	19·4
Saint John, N.B.	47,514	1,065	22·4	26·3	19·6
Cities and towns of 10,000-40,000	78,585	1,912	24·3	28·1	19·9
Cities and towns of 5,000-10,000	95,139	2,427	25·5	24·1	24·3
Remaining parts[2]	728,590	17,274	23·7	18·6	29·3
Quebec	2,874,255	83,403	29·0	23·9	27·9
Cities of 40,000 and over—					
Montreal	818,577	19,968	24·4	28·0	20·0
Quebec	130,594	4,309	33·0	27·7	27·4
Verdun	60,745	1,507	24·8	28·9	19·7
Cities and towns of 10,000-40,000	282,756	7,770	27·5	26·5	23·8
Cities and towns of 5,000-10,000	98,621	3,421	34·7	24·3	32·2
Remaining parts[2]	1,482,962	46,428	31·3	20·6	35·0
Ontario	3,431,683	68,908	20·1	23·9	19·3
Cities of 40,000 and over—					
Hamilton	155,547	3,076	19·8	26·5	17·1
London	71,148	1,170	16·4	26·9	14·0
Ottawa	126,872	2,503	19·7	28·7	15·8
Toronto	631,207	11,607	18·4	29·1	14·5
Windsor	63,108	1,391	22·0	27·4	18·5
Cities and towns of 10,000-40,000	487,270	10,879	22·3	25·3	20·3
Cities and towns of 5,000-10,000	175,793	3,700	21·0	24·0	20·1
Remaining parts[2]	1,720,738	34,583	20·1	20·7	22·3
Prairie Provinces	2,353,529	52,970	22·5	21·9	23·8
Manitoba	700,139	14,188	20·3	23·1	20·2
Saskatchewan	921,785	21,523	23·3	21·0	25·5
Alberta	731,605	17,265	23·6	21·8	24·9
Cities of 40,000 and over—					
Calgary, Alta.	83,761	1,574	18·8	26·4	16·4
Edmonton, Alta.	79,197	1,646	20·8	26·8	17·8
Regina, Sask.	53,209	1,294	22·6	29·2	17·8
Saskatoon, Sask.	43,291	878	20·3	28·1	16·6
Winnipeg, Man.	218,785	3,553	16·2	28·5	13·1
Cities of 10,000-40,000	78,475	1,453	18·9	25·0	17·4
Cities and towns of 5,000-10,000	43,560	879	20·2	24·4	19·0
Remaining parts[2]	1,753,251	41,759	23·8	20·0	27·3
British Columbia	694,263	10,503	15·1	21·7	16·1
Cities of 40,000 and over—					
Vancouver	246,593	3,365	13·6	24·4	12·9
Cities of 10,000-40,000	56,506	829	14·6	22·6	14·9
Cities of 5,000-10,000	41,337	811	19·6	22·4	20·1
Remaining parts[2]	349,727	5,497	15·7	19·5	18·5

[1] Exclusive of Yukon and the Northwest Territories.
[2] Comprising towns under 5,000, all villages and all rural parts.
[3] See page 122 for method of computation.
[4] The standardized rates were computed from the crude and expected rates carried to two places of decimals.

Canada as a whole had a birth rate averaging 23·1 per thousand population over the three-year period. The lowest rate (both crude and standardized) in its constituent parts is shown for cities of 100,000 and over, the crude rate for this group being 20·8 per thousand and the standardized rate only 17·1 per thousand. Cities of 40,000-100,000 stand next in order in both crude and standardized rates, with 21·1 and 17·7 per thousand, respectively. The highest group crude rate, 24·7 per thousand, is for cities and towns of 5,000-10,000, but standardization gives the highest rate to the small towns, villages and rural units which make up "remaining parts," the standardized rates for this group for all Canada being 27·5 per thousand as against 23·6 for the cities and towns of 5,000-10,000. Not only do "remaining parts" show the highest standard-

ized group rate for Canada as a whole, but also for each section for which the summary has been made, with the exception of British Columbia in which the cities of 5,000-10,000 show the highest rate, whether crude or standardized.

Effect on Birth Rates of Conjugal Condition of Women at Child-Bearing Ages.— It will be observed that the method of standardization described above is based on the comparison of the actual number of births in a given unit or group of units with the number which might be expected from the proportion of females, whether married or unmarried, in each of the child-bearing groups of ages, and takes no account of the conjugal condition of these females. Had the Canadian rates (specific fertility) which were used as an index been only those for legitimate births, and had these been applied only to the number of married women of child-bearing ages in each unit or group, we would have an expected rate measuring the fertility within marriage. However, we want a rate which, while based only on married women, includes all births. Each expected rate obtained by this second method was, therefore, multiplied by 1·036 to make allowance for illegitimate births on the basis of the proportion in Canada as a whole before using it in the second part of the formula for obtaining the standardized rate.

The census data of age, by conjugal condition, which is required for such computation, was available only for cities of 30,000 and over. This second method of standardization has, therefore, only been applied to such cities, and the expected and standardized birth rates so obtained are shown in Statement LXXX hereunder.

LXXX.—CRUDE, EXPECTED AND STANDARDIZED BIRTH RATES ALLOWING FOR FERTILITY, WITHIN MARRIAGE, CITIES OF 30,000 POPULATION AND OVER, 1931

City	Birth Rates per 1,000 Population		
	Crude	Expected	Stand-ardized
Brantford, Ont.	19·7	24·1	18·9
Calgary, Alta.	18·8	26·3	16·5
Edmonton, Alta.	20·8	26·4	18·2
Halifax, N.S.	23·8	24·8	22·2
Hamilton, Ont.	19·8	26·9	17·0
Kitchener, Ont.	22·2	28·7	17·9
London, Ont.	16·4	24·1	15·8
Montreal, Que.	24·4	23·7	23·7
Ottawa, Ont.	19·7	21·5	21·2
Quebec, Que.	33·0	18·7	40·8
Regina, Sask.	22·6	28·3	18·5
Saint John, N.B.	22·4	22·7	22·8
Saskatoon, Sask.	20·3	27·0	17·0
Toronto, Ont.	18·4	25·2	16·9
Trois-Rivières, Que.	36·7	23·1	35·8
Vancouver, B.C.	13·6	23·0	13·7
Verdun, Que.	24·8	31·6	18·2
Victoria, B.C.	12·6	18·1	16·0
Windsor, Ont.	22·0	30·0	16·6
Winnipeg, Man.	16·2	25·0	15·0

Wherever the standardized rate of a city in Statement LXXX is above the standardized rate for the same city in Statement LXXIX it indicates that the conjugal condition of the women of child-bearing ages in that city is more unfavourable from the standpoint of births than in Canada as a whole. Thus the city of Ottawa shows a standardized rate of only 15·8 in Statement LXXIX but this rate is raised to 21·2 in Statement LXXX. The difference between these rates reflects the fact that Ottawa contains a very unusual proportion of unmarried women at the child-bearing ages, due to the large proportion of female employees in the Civil Service. A similar pronounced relationship between the two rates exists in the city of Quebec, where the standardized rate in Statement LXXIX is 27·4 and in Statement LXXX, 40·8. On the other hand, the city of Hamilton, which has a standardized rate of 17·1 in Statement LXXIX shows a standardized rate of 17·0 in Statement LXXX. Here evidently the conjugal condition of the

female population of child-bearing ages is about as favourable to high fertility as in the country taken as a whole. It may be interesting to compare the proportion of married females as in the child-bearing ages in the cities of Hamilton, Ottawa and Quebec with the corresponding proportion in Canada taken as a whole.

LXXXI.—PROPORTION OF FEMALES 15-49 YEARS OF AGE MARRIED, BY QUINQUENNIAL AGE GROUPS, CANADA, HAMILTON, OTTAWA AND QUEBEC CITY, 1931

Age Group	Canada	Hamilton	Ottawa	Quebec
	p.c.	p.c.	p.c.	p.c.
15-49	56·11	58·89	45·68	40·63
15-19	5·03	5·20	3·23	1·78
20-24	36·47	37·42	23·31	18·74
25-29	66·57	67·40	48·34	47·07
30-34	79·14	78·86	63·84	62·48
35-39	82·57	81·28	69·06	68·55
40-44	82·68	81·42	70·78	68·82
45-49	81·34	78·82	69·81	69·34

Geographical Regions.—By way of a general picture, Statement LXXXII shows the variety of resident birth rates occurring in the 227 divisions and in the cities and towns of 5,000 population and over. For this purpose the birth rates were arranged in order of size and divided into seven classes. The highest birth rate recorded was 48·6 in Drummondville, Que., and the lowest was 3·0 in Division No. 10A, B.C. To enable the reader to grasp more readily the significance of the classes, a scale of reference is given at the foot of the statement showing which countries of the world (where birth rates are known) fall into each class. The highest class in the arrangement of Statement LXXXII is "40 and over" in which is found only one country, Egypt, but contains seven cities and towns of Canada, and the rural parts of three counties, viz., Lac-St-Jean, Chicoutimi and Matane, all in Quebec. The lowest class is "under 15". This class is also represented by only one country, Sweden, and contains, for Canada, five counties, six cities and towns with population of 5,000 and over and the rural parts of seven counties, viz., Divisions Nos. 2, 4, 5A, 9A, 10A and 10B, all in British Columbia and Wentworth, rural parts, in Ontario. The cities which fall in the highest class are Drummondville, Jonquiere, Chicoutimi, Thetford Mines, Shawinigan Falls, Rimouski, all in Quebec, and Edmundston in New Brunswick.

LXXXII.—NUMBER IN EACH BIRTH RATE CLASS (CRUDE AND STANDARDIZED) OF COUNTIES TAKEN AS A WHOLE, "REMAINING PARTS" AND CITIES AND TOWNS OF 5,000 POPULATION AND OVER, 1931, AND SHOWING A SCALE OF REFERENCE OF THE COUNTRIES OF THE WORLD

Birth Rate Class	Crude Rate			Standardized Rate		
	County as a Whole	"Remaining Parts"	Cities and Towns of 5,000 population and over	County as a Whole	"Remaining Parts"	Cities and Towns of 5,000 population and over
Under 15	5	7	6	5	2	11
15-19	57	58	43	30	23	64
20-24	79	78	44	67	67	25
25-29	34	38	18	56	55	12
30-34	32	28	10	35	36	15
35-39	17	15	9	19	22	5
40 and over	3	3	7	21	22	5

	Countries of the world (where birth rates are known) falling into each class:
Under 15	Sweden
15-19	Australia, Austria, Belgium, Denmark, Eire, England and Wales, Esthonia, Finland, France, Germnay, Latvin, New Zealand, Norway, Scotland, Switzerland, United States (R.A.)
20-24	Czechoslovakia, Hungary, Italy, Netherlands, Newfoundland, Northern Ireland, Uruguay
25-29	Bulgaria, Iceland, Spain, Union of South African (Whites)
30-34	Chile, Greece, India, Japan, Jamaica, Poland, Portugal, Roumania
35-39	Ceylon
40 and over	Egypt

· Map I shows the regional distribution of crude birth rates for counties as a whole and Map II shows the same thing for counties exclusive of cities and towns of 5,000 population and over. Owing to exigencies of space, the counties are not shown in the maps but the Index Map* and the key to it should obviate any inconvenience on this score. What is really important in a regional presentation of data is to ascertain whether there is any regional clustering, i.e., whether the aspect of one county is a reflection of the aspects of the surrounding counties or of the zone in which it is found. If not, i.e., if the counties behave individually, we cannot say that there is a regional tendency.

Regional Tendencies of Counties as a Whole.—With Map I in front of him the reader can see that there is a definite clustering. The members of the highest class (40 and over, corresponding in birth rate to Egypt) are found in two adjoining counties and another county that is close by. The second highest (35-39, corresponding to Ceylon), with the exception of one group, occur in northern and thinly settled or new parts of Quebec. New Brunswick and Alberta. The counties in the exceptional group are Frontenac, Beauce and Dorchester, Que. These and other exceptions will be dealt with further on, but it should be noticed that they occur in a group instead of individually. The next highest (30-34, corresponding to countries such as Chile) follows the same general tendency, spreading, however, to the new parts of Ontario, Manitoba, the northern parts of Saskatchewan and a part in Alberta south of the higher class already mentioned. An apparent exception is Kent, N.B. One more class (25-29, corresponding to countries such as Bulgaria) may be regarded as high. This class, on the whole, forms clusters south of the higher classes already mentioned. Apparent exceptions appear in Cape Breton, N.S., Prince, P.E.I., Division No. 2, Man., Queen Charlotte Island and Division No. 9B, B.C. The next class (20-24, corresponding to Italy) is what might be termed the average, i.e., the middle of it corresponds to the Canada rate of 23·1. It is remarkably continuous and seems to be connected with latitude. Coming now to the classes which may be regarded as low, the 15-19 class (corresponding to France) has definite localities, viz., the Pacific Slope, southern Manitoba, the Ontario peninsula, apparent exceptions being one division in Alberta, four counties in Quebec and sections of the Maritime Provinces. It will be noticed that, on the whole, this class covers either the most thickly settled or the oldest parts, the Pacific Slope coming under the category of thickly settled because its population is found mainly in urban centres. Inverness, Victoria, Pictou, Antigonish, Annapolis and Lunenburg in Nova Scotia, and Kings in Prince Edward Island are well known to be not old regions but also parts that have suffered measurable depopulation from emigration of both sexes, which undoubtedly affected the birth rate. The lowest class (under 15, corresponding to Sweden) is obviously exceptional as a class occurring in the north and extreme southwest of British Columbia.

The Canadian Birth Rate (23·1) as the Regional Average.—In some respects the Canadian birth rate of 23·1 in 1930-32 is typical as a regional average. It covers a large central territory in which is found the centres of Canada's population and which contains 40 p.c. of the population. It is also the predominant class in the Maritime Provinces. If the average had been merely a balance between a small area with a very large population and extremely low birth rate and a large area with a small population and a very high birth rate, the 23·1 could not be regarded as typical and, to this extent, is a fair picture of the true birth rate could not be given by one figure unaccompanied by supplementary figures showing the incidences of area and population. Table 16, Part III, page 184, shows the 227 divisions of Canada in seven classes in order of size and names the members of these classes with their resident crude birth rates, their population in 1931 and their area in square miles. A summary of this data is contained in Statement LXXXIII and shows the proportion each class forms of the total, both as regards population and land area. The two classes below average contain 34 p.c. of the population of Canada and 21 p.c. of the land area; the average class contains 40 p.c. of the population and 32 p.c. of the land area; the four classes above average contain almost 26 p.c. of the population and 47 p.c. of the land area. All this seems to show that the average of 23·1 is good; however, we cannot regard other than significant that nearly half of the land area is in the highest classes. ·

*Opposite page 14.

MAP I

MAP OF CANADA
SHOWING
THE CRUDE BIRTH RATES[1]
FOR COUNTIES OR CENSUS DIVISIONS
1930-32
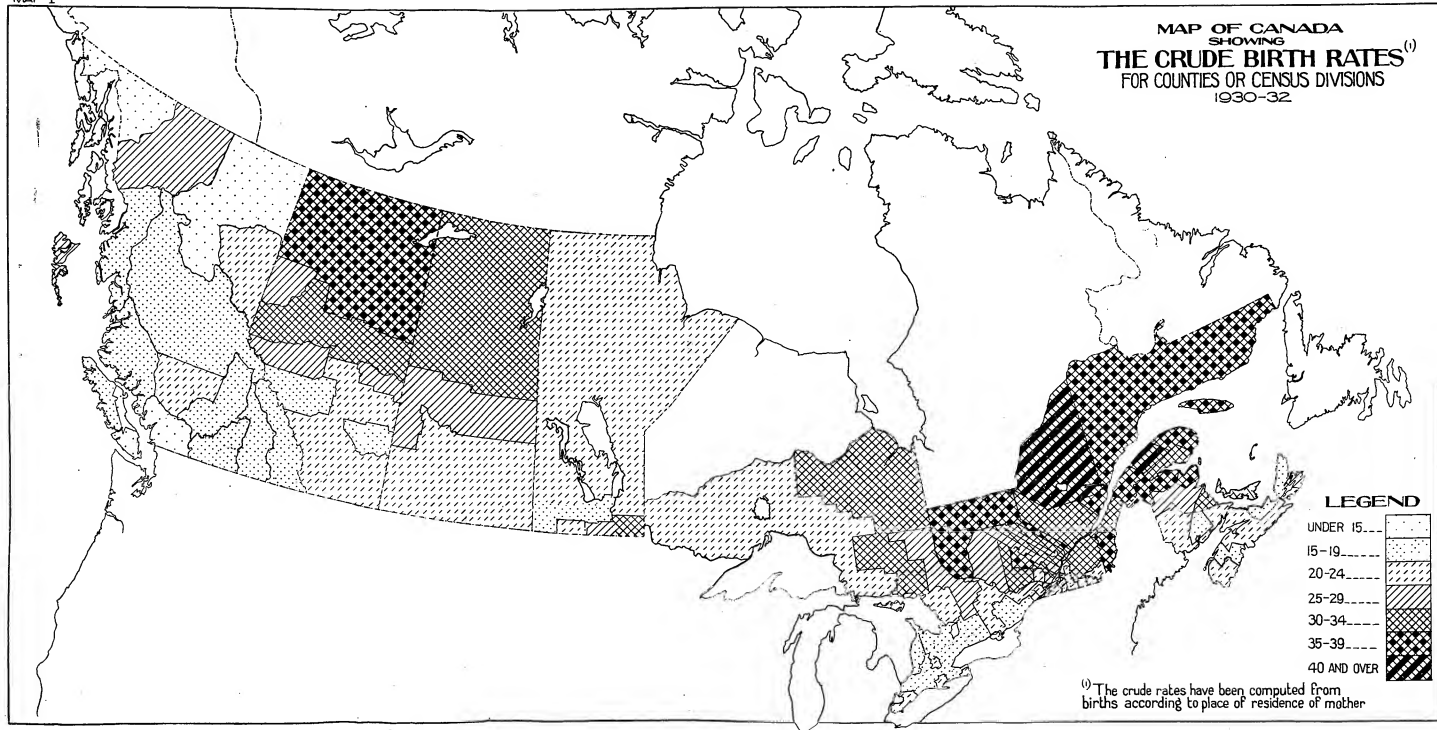
LEGEND

UNDER 15____
15 - 19 _____
20 - 24 _____
25 - 29 _____
30 - 34 _____
35 - 39 _____
40 AND OVER

[1] The crude rates have been computed from births according to place of residence of mother

MAP II

MAP OF CANADA
SHOWING
THE CRUDE BIRTH RATES[1]
FOR COUNTIES OR CENSUS DIVISIONS
EXCLUSIVE OF CITIES AND TOWNS
5,000 AND OVER
1930-32

LEGEND

UNDER 15____
15-19_____
20-24_____
25-29_____
30-34_____
35-39_____
40 AND OVER
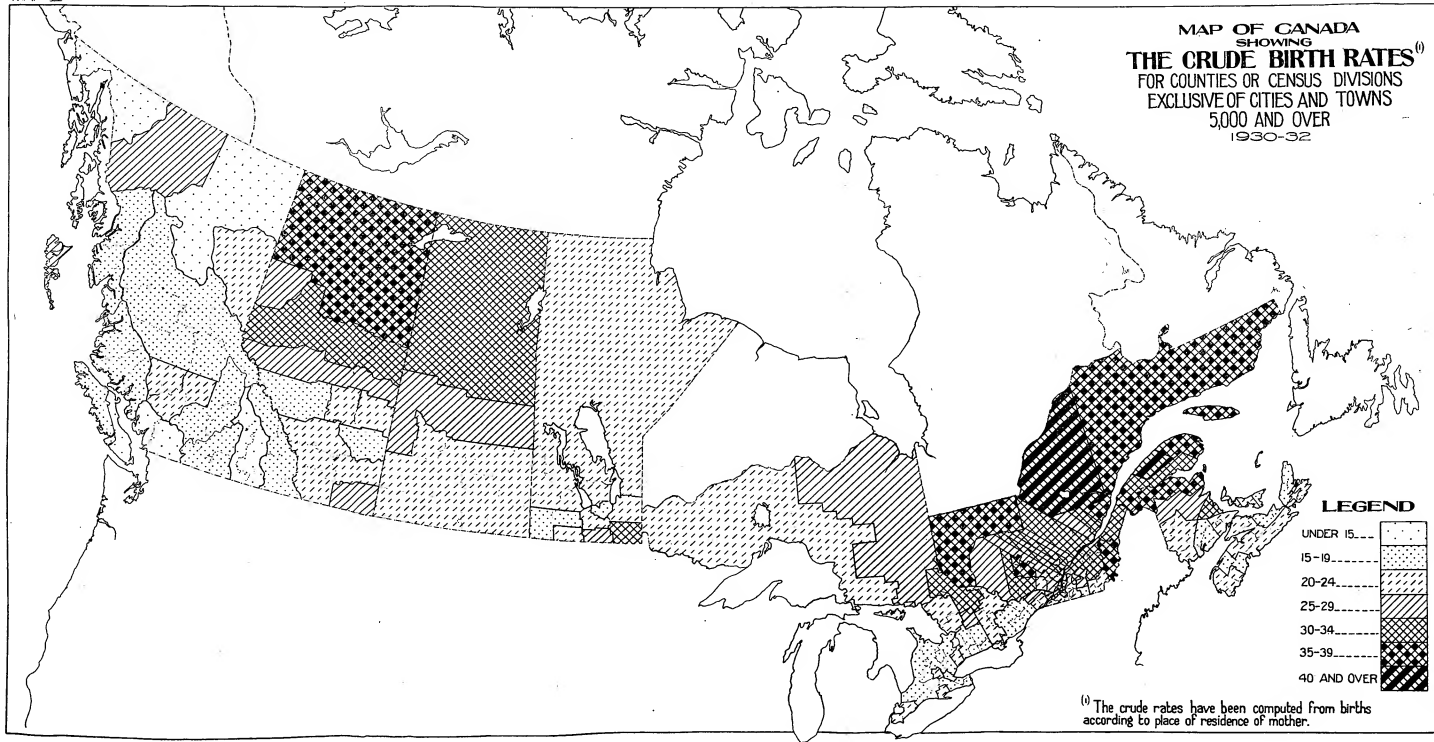
[1] The crude rates have been computed from births according to place of residence of mother.

LXXXIII.—PERCENTAGE ACCOUNTED FOR BY COUNTIES AND CENSUS DIVISIONS IN BIRTH
RATE CLASS OF (1) POPULATION OF CANADA, 1931, AND (2) LAND AREA OF CANADA

Birth Rate¹ Class	P.C. Accounted for by Counties and Divisions in Class of	
	Population of Canada 1931	Land Area of Canada
Under 15...	4·78	5·80
15-19..	29·60	15·37
20-24..	39·70	31·60
25-29..	9·17	9·91
30-34..	10·32	16·32
35-39..	4·88	18·25
40 and over..	1·46	2·74

¹ Crude rate.

Regional Tendencies for Rural and Small Urban Centres.—Map II shows the resident
birth rates in counties and census divisions excluding cities and towns of 5,000 population and
over. The points of interest are the changes effected by the exclusion of the cities. It is really
remarkable that the exclusion raised only five counties, while it lowered nineteen. The two rates
and the cities and towns which brought about the change are shown for these counties in State-
ment LXXXIV.

Probably small towns and rural non-farm population, particularly the part of it found in
suburban areas, are at least partly responsible for the fact that the exclusion of large cities (*i.e.*,
Quebec in Quebec county) has lowered rather than raised the birth rate.

LXXXIV.—COUNTIES WHOSE CRUDE BIRTH RATES WERE AFFECTED BY THE EXCLUSION OF
CITIES AND TOWNS OF 5,000 POPULATION AND OVER, SHOWING CRUDE RATES
FOR THE COUNTIES AS A WHOLE AND FOR THE "REMAINING PARTS," 1931

County	Crude Birth Rate for County as a Whole	Cities and Towns of 5,000 Population and over	Crude Birth Rate for Remaining Part of County
Cape Breton, N.S...............................	26·5	Sydney, Glace Bay, New Waterford, North Sydney, Sydney Mines	22·1
Saint John, N.B................................	21·6	Saint John	16·9
Beauharnois, Que..............................	24·8	Valleyfield	19·4
Drummond, Que................................	32·5	Drummondville	27·1
Montreal and Jesus Islands, Que..............	23·2	Lachine, Montreal, Outremont, Verdun, West-mount, St-Laurent	18·3
Quebec, Que...................................	31·6	Quebec	26·9
Rimouski, Que.................................	35·1	Rimouski	33·5
Shefford, Que..................................	30·6	Granby	27·9
Stanstead, Que.................................	25·2	Magog	22·0
St-Jean, Que...................................	25·9	St-Jean	23·8
St-Maurice, Que................................	35·8	Shawinigan Falls, Trois-Rivières	29·4
Terrebonne, Que................................	30·8	St-Jérôme	29·2
Carleton, Ont..................................	20·1	Ottawa, Eastview	19·1
Cochrane, Ont..................................	30·4	Timmins	29·0
Nipissing, Ont.................................	29·0	North Bay	31·9
Stormont, Ont..................................	25·7	Cornwall	22·2
Sudbury, Ont..................................	31·1	Sudbury	28·3
Welland, Ont..................................	29·3	Niagara Falls, Welland, Fort Erie, Port Colborne, Thorold	18·0
Wentworth, Ont................................	18·9	Hamilton, Dundas	14·5
York, Ont.....................................	19·0	Toronto, Mimico, New Toronto	20·6
Division No. 6, Man...........................	27·8	Portage la Prairie, St. Boniface, Winnipeg	22·8
Division No. 1, Sask...........................	23·7	Medicine Hat	26·8
Division No. 11, Alta..........................	23·0	Edmonton	25·6
Division No. 2, B.C............................	17·4	Nelson, Trail	15·6

Correlation between Regional Birth Rates and Types of People.—In Chapter V
the birth rate was examined for racial differentiation. A considerable differentiation was dis-
covered and the French element of the population was observed to show conspicuously high birth
rates. This and the fact that they are the second dominant element in our population suggests
the question of how their preponderance in certain regions influences the regional distribution of

birth rates. It is true that regional distribution measured on a county basis should take into consideration other races as well as French, e.g., certain divisions in the Prairie Provinces are predominantly races other than British and French. However, it does not seem necessary to show the influence of each separate race. It is almost patent that the French as a race and Roman Catholic as a religion are two powerful elements entering into the birth rate. It will be useful to know the regional differentiation when these two elements are removed and, accordingly, in Table 17, Part III, page 186, we show certain correlations.

Incidental to the main purpose, these correlations investigate whether the correlation varies in any way with types of localities differentiated as rural and size groups of urban. It is remarkable and difficult to explain that the rural shows a lower correlation than the different size groups of urban centres (except one, the case of cities and towns of 10,000–30,000). There is something peculiar in the behaviour of this particular type of urban centre, observable in other phases of fertility besides this correlation. As to the lower correlation in the case of rural, indeed the correlation is not at all high and it is true both of the racial and the religious elements. It would seem to indicate that rural birth rates are less dependent upon types of people than are urban birth rates.

Table 17 shows the standardized birth rate and percentage French for a sample of the "remaining parts" of the counties or census divisions and for the complete number of cities and towns falling into each of the four size groups of urban municipalities. These two items were correlated for each group. The number of separate units represented in the cities of 30,000 population and over is only 20 and for this reason and because of their type of distribution the correlation may not be as reliable as the others. The real story would seem to be that the correlation does not vary significantly as between different types of communities and this makes the coefficient of about ·70 running through all the correlations the more reliable. Since the table is given only to show and measure the extent of correlation, no use is made of the regression equation.

Table 17 shows, also, the percentage Roman Catholic and the correlation for each group of this item with the standardized birth rate. A summary of the correlations of Table 17 is given in Statement LXXXV.

LXXXV.—CORRELATION OF STANDARDIZED BIRTH RATE WITH (1) PERCENTAGE FRENCH AND (2) PERCENTAGE ROMAN CATHOLIC, FOR SIZE GROUPS OF URBAN MUNICIPALITIES AND "REMAINING PARTS"

Item	Correlation of Standardized Birth Rate with	
	P.C. French	P.C. Roman Catholic
"Remaining parts"	·67	·71
Cities and towns of 5,000-10,000	·72	·80
Cities and towns of 10,000-30,000	·63	·68
Cities and towns of 30,000 and over	·84	·86

It is seen that the correlations with the percentage Roman Catholic are somewhat higher than with the percentage French. As before, the same type of correlation (around ·75) persists. There may be some significance, however, in the fact that the highest coefficients are shown for the largest and the smallest urban units, particularly in view of a fact observed elsewhere in the behaviour of birth rates in the middle sized cities.

Two points should be mentioned in connection with these correlations. The first is that the birth rates used are standardized and as such are free from the influence of age; they are not the actual birth rates. It has been observed elsewhere that the age distribution is not particularly favourable to the French race and that the standardized rates are somewhat higher than the crude. The second point is connected with the significance of a correlated coefficient. The typical coefficients, ·70 for French and ·75 for Roman Catholic, are not remarkably high since it is clear from Maps I and II that there is also a certain regional influence entering into these correlations, e.g., the northern parts of Quebec, Ontario, Saskatchewan and Alberta, where the Indians are largely Roman Catholic. The crude birth rate of Indians is very high, viz., 30·8 in 1931-32. A large French element also is found in these northern parts. Since the influences of race and religion are thus intermingled with the regional influences, it becomes very desirable

MAP III

MAP OF CANADA
SHOWING
THE REGIONAL DISTRIBUTION
OF
CRUDE BIRTH RATES
FOR COUNTIES OR CENSUS DIVISIONS
EXCLUSIVE OF CITIES AND TOWNS
5,000 AND OVER, AFTER ELIMINATING
THE INFLUENCES OF FRENCH AND
ROMAN CATHOLIC 1930-32

LEGEND

UNDER 15	
15-19	
20-24	
25-29	
30-34	
35-39	
40 AND OVER	
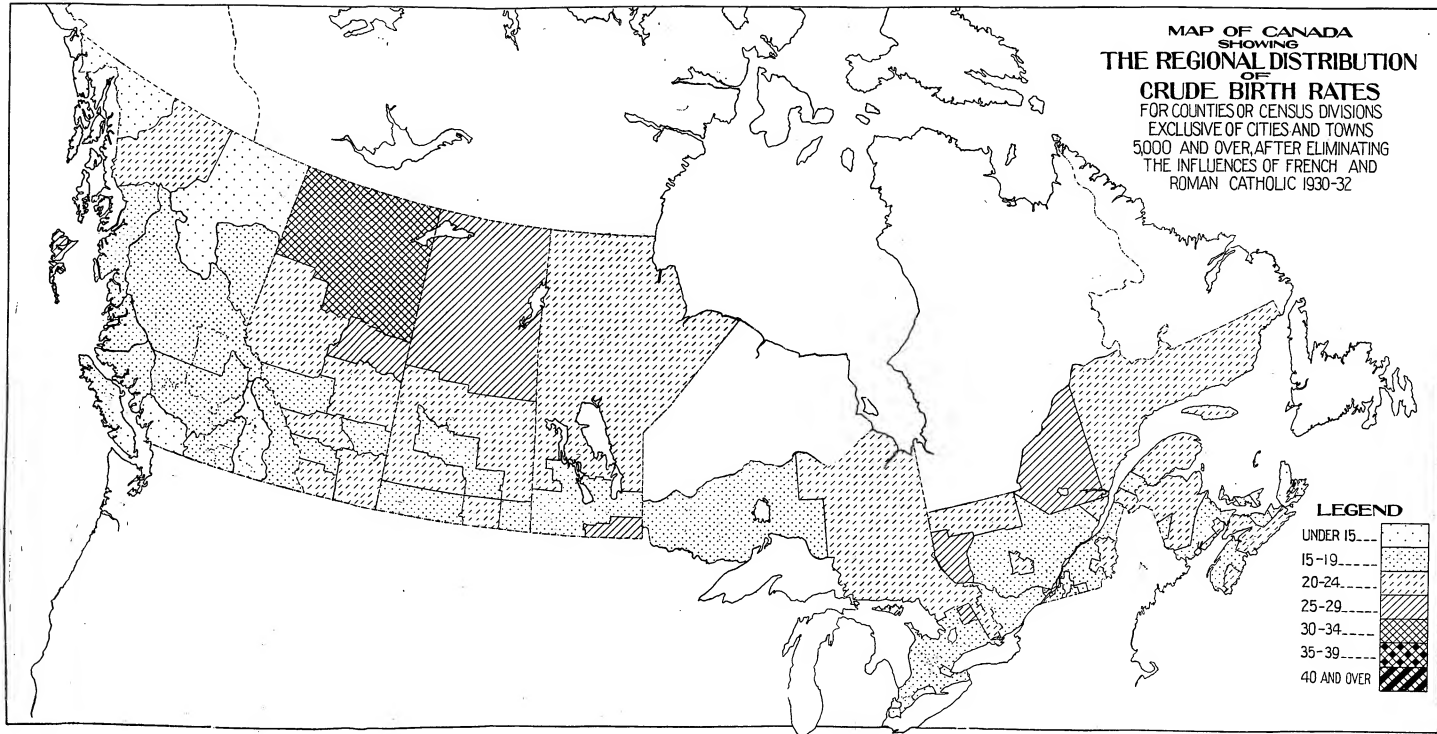
to ascertain what regional influences exist independently of race and religion. To ascertain this, a multiple correlation was measured taking the "remaining parts" of the counties and census divisions and correlating the crude birth rate (X_1) as dependent variable with percentage French (X_2) and percentage Roman Catholic (X_3). The correlation was ·71 in which the two elements—French and Roman Catholic—had almost equal weights. (The equation is seen in the footnote.) The square of the standard deviation of the crude birth rate was 45·1 (the standard deviation being 6·5). The correlation thus means that French and Roman Catholic, with whatever regional influences they reflected, were responsible for 22·6 out of the 45·1 leaving 22·5 or a standard deviation of 4·8 still to be accounted for by regional influences independent of race and religion.

To show the birth rate independent of race and religion the following device was used. The birth rate was calculated by means of the regression equation $X_1 = A + BX_2 + CX_3$. This calculation, shown in Table 18, Part III, page 188, was then reduced to an index with A (i.e., 18·9) as a base. This index was then divided into the actual birth rates of the counties or divisions, the result being regarded as the birth rate independent of race and religion. This process is justified on the basis of the motive of the data and the results rather than on the score of strict mathematical precision, since to be mathematically accurate we should have subtracted the calculation from the actual instead of dividing. If the latter had been done, the results could not be intelligibly shown on a map, and it was ascertained satisfactorily that the difference in this case was not sufficiently significant to justify using plus and minus signs on a map with all the confusion that would ensue.

Map III shows the regional distribution of crude birth rates independent not only of race and religion but of such regional influences as were inseparably associated with race and religion. It will be observed that only the two highest classes have disappeared (comparing Map III with Map II), and that the lowest class was increased or introduced only in Ontario, Quebec and the Maritimes. Statement LXXXVI showing the comparative number in each class on Maps II and III summarizes the changes brought about.

LXXXVI.—COMPARATIVE NUMBER OF COUNTIES IN BIRTH RATE CLASS FOR MAP II (CRUDE RATES) AND MAP III (RATES INDEPENDENT OF INFLUENCE OF FRENCH AND ROMAN CATHOLIC)

Birth Rate Class	No. of Counties in Class on	
	Map II	Map III
Under 15	7	23
15-19		
20-24	58	129
25-29	78	64
30-34	38	10
35-39	28	1
40 and over	15	—
	3	—

Map III unmistakeably shows that the regions of high birth rates are the regions of low population densities and those of low birth rates regions either of high population density or old regions which also suffered from emigration of young people. The exceptions mentioned in British Columbia still exist. It is interesting to find on Map III certain places standing out conspicuously that would not be noticed on the other maps, e.g., Haliburton, Ont. Here we have an area of 1,486 square miles with a density in 1931 of only 4·04 and no urban population, quite close to counties with comparatively high densities. The very lowest class is still an exceptional class and the average is still predominant although, of course, the 15-19 class, that of France, England and Wales, etc., has increased.

Conclusion.—The conclusion from a regional birth rate study would seem to be quite definite, viz., that there is a regional trend of low to high birth rates corresponding to areas from high to low population densities; also, from the old to the new or, what is about the same thing, from the south to the north. When the influences of race and religion are removed there would seem to be a general tendency of the birth rates for old parts to correspond to birth rates in the British Isles and Northwestern Europe. Very low birth rates would seem to have special causes, such as a history of very heavy emigration (especially of females) and low proportions in the married state as a consequence. There is no doubt that the surplus of males is one of the influences but this itself is partly regional.

PART III

TABLE 1. Number and percentage of census schedules and infant death returns matched with birth transcripts for (1) total population exclusive of Indians and (2) Indian population, Canada and provinces, 1931

Province	Total	Matched with Birth Transcripts		Not Matched with Birth Transcripts	
		No.	P.C.	No.	P.C.

CHECK FROM CENSUS SCHEDULES TO BIRTH TRANSCRIPTS

Province	Total	No.	P.C.	No.	P.C.
For total population, exclusive of Indians—					
CANADA	26,205	23,187	88	3,018	12
Prince Edward Island	1,764	1,407	80	357	20
Nova Scotia	2,067	1,774	86	293	14
New Brunswick	1,855	1,658	89	197	11
Quebec	5,473	4,974	91	499	9
Ontario	5,763	5,138	89	625	11
Manitoba	2,402	2,164	90	238	10
Saskatchewan	2,806	2,454	87	352	13
Alberta	2,203	1,986	90	217	10
British Columbia	1,862	1,622	87	240	13
For Indian population—					
CANADA	2,019	1,281	63	738	37
Prince Edward Island	–	–	–	–	–
Nova Scotia	–	–	–	–	–
New Brunswick	–	–	–	–	–
Quebec	227	130	57	97	43
Ontario	453	256	57	197	43
Manitoba	366	240	66	126	34
Saskatchewan	239	163	68	76	32
Alberta	310	229	74	81	26
British Columbia	424	263	62	161	38

CHECK FROM INFANT DEATH RETURNS TO BIRTH TRANSCRIPTS

Province	Total	No.	P.C.	No.	P.C.
For total population, exclusive of Indians—					
CANADA	2,721	2,591	95	130	5
Prince Edward Island	97	75	77	22	23
Nova Scotia	157	141	90	16	10
New Brunswick	169	163	96	6	4
Quebec	1,146	1,094	95	52	5
Ontario	444	438	99	6	1
Manitoba	154	142	92	12	8
Saskatchewan	250	237	95	13	5
Alberta	210	209	100	1	–
British Columbia	94	92	98	2	2
For Indian population—					
CANADA	211	184	87	27	13
Prince Edward Island	–	–	–	–	–
Nova Scotia	–	–	–	–	–
New Brunswick	–	–	–	–	–
Quebec	5	5	100	–	–
Ontario	28	24	86	4	14
Manitoba	60	48	80	12	20
Saskatchewan	76	74	97	2	3
Alberta	21	19	90	2	10
British Columbia	21	14	67	7	33

TABLE 2.   Canadian Life Table for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, taking births as published

Age x	Canada						
	l_x	d_x	p_x	q_x	L_x	T_x	e_x

MALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e_x
Days—							
0-1	113.035	1,926	.98298	.01704	112,072	6,738,898	59·62
1-2	111,109	520	.99538	.00468	110,849	6,738,591	60·65
2-3	110,589	437	.99605	.00395	101,370	6,738,257	60·93
3-4	110,152	300	.99729	.00272	110,002	6,737,985	61·17
4-5	109,853	201	.99817	.00183	109,752	6,737,883	61·33
5-6	109,651	150	.99863	.00137	109,576	6,737,383	61·44
6-7	109,501	120	.99890	.00110	109,441	6,737,082	61·53
Weeks—							
1	109,381	617	.99436	.00564	109,072	6,736,782	61·59
2	108,764	438	.99597	.00403	108,545	6,734,691	61·92
3	108,326	389	.99641	.00359	108,132	6,732,609	62·15
Months—							
1	107,937	1,018	.99057	.00943	107,428	6,730,053	62·35
2	106,919	860	.99195	.00804	106,479	6,721,100	62·86
3	106,059	644	.99393	.00607	105,737	6,712,237	63·29
4	105,415	527	.99509	.00500	105,152	6,703,416	63·59
5	104,888	458	.99565	.00435	104,660	6,694,653	63·83
6	104,432	390	.99626	.00374	104,237	6,685,931	64·02
7	104,042	342	.99671	.00329	103,871	6,677,245	64·18
8	103,700	297	.99714	.00286	103,552	6,668,589	64·31
9	103,403	260	.99748	.00251	103,273	6,659,960	64·41
10	103,113	226	.99781	.00219	103,000	6,651,355	64·51
11	102,887	200	.99806	.00194	102,787	6,642,772	64·56
Years—							
1	102,687	1,291	.98743	.01257	102,042	6,634,004	64·44
2	101,396	640	.99369	.00631	101,076	6,532,164	64·42
3	100,756	439	.99564	.00436	100,536	6,431,088	63·83
4	100,317	317	.99684	.00316	100,158	6,330,552	63·11
5	100,000	–	–	–		6,230,394	62·30

FEMALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e_x
Days—							
0-1	110.449	1,415	.98719	.01281	109,742	6,824,702	61·79
1-2	109,034	415	.99619	.00381	108,829	6,824,401	62·59
2-3	108,619	314	.99711	.00289	108,462	6,824,105	62·82
3-4	108,305	220	.99797	.00203	108,195	6,823,822	63·00
4-5	108,085	149	.99865	.00135	108,010	6,823,327	63·13
5-6	107,936	112	.99896	.00104	107,853	6,823,031	63·21
6-7	107,827	96	.99911	.00089	107,770	6,822,735	63·28
Weeks—							
1	107,731	488	.99547	.00453	107,487	6,822,440	63·33
2	107,243	356	.99668	.00332	107,065	6,820,379	63·60
3	106,887	323	.99698	.00302	106,726	6,818,325	63·79
Months—							
1	106,564	748	.99298	.00702	106,190	6,815,802	63·96
2	105,816	695	.99343	.00657	105,468	6,806,953	64·33
3	105,121	502	.99523	.00478	104,870	6,798,164	64·67
4	104,619	421	.99598	.00402	104,408	6,789,425	64·90
5	104,198	365	.99650	.00350	104,016	6,780,724	65·08
6	103,833	323	.99689	.00311	103,672	6,772,056	65·22
7	103,510	281	.99729	.00271	103,370	6,763,417	65·34
8	103,229	252	.99756	.00244	103,103	6,754,808	65·44
9	102,977	234	.99773	.00227	102,860	6,746,211	65·51
10	102,743	192	.99813	.00187	102,647	6,737,620	65·58
11	102,551	162	.99842	.00158	102,470	6,729,085	65·62
Years—							
1	102,389	1,160	.98858	.01142	101,804	6,720,546	65·64
2	101,230	531	.99475	.00525	100,954	6,618,742	65·39
3	100,699	398	.99605	.00395	100,499	6,517,788	64·73
4	100,291	291	.99710	.00290	100,146	6,417,298	63·90
5	100,000	–	–	–		6,317,152	63·17

TABLE 3. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1930-1932, deaths 1930-1932 and births 1926-1932, taking births as published

Age x				Maritime Provinces			
	l_x	d_x	p_x	q_x	L_x	T_x	$\overset{\circ}{e}_x$
MALES							
Days—							
0-1	112,978	1,719	·98478	·01522	112,118	6,750,182	59·75
1-2	111,259	476	·99572	·00428	111,021	6,749,874	60·67
2-3	110,783	500	·99549	·00451	110,533	6,749,570	60·93
3-4	110,283	336	·99695	·00305	110,115	6,749,267	61·20
4-5	109,947	261	·99763	·00237	109,816	6,745,966	61·38
5-6	109,686	139	·98873	·00127	109,616	6,748,665	61·53
6-	109,547	140	·99872	·00128	109,477	6,748,388	61·60
Weeks—							
1	109,407	542	·99505	·00495	109,136	6,748,064	61·68
2	108,865	388	·99644	·00356	108,671	6,748,971	61·97
3	108,477	340	·99687	·00313	108,307	6,743,587	62·17
Months—							
1	108,137	1,072	·99009	·00991	107,601	6,741,316	62·34
2	107,065	921	·99140	·00860	106,604	6,732,349	62·88
3	106,144	714	·99327	·00673	105,787	6,723,465	63·34
4	105,430	518	·99509	·00491	105,171	6,714,630	63·69
5	104,912	454	·99567	·00423	104,685	6,705,886	63·92
6	104,458	348	·99667	·00333	104,284	6,697,162	64·11
7	104,110	333	·99680	·00320	103,944	6,688,471	64·24
8	103,777	284	·99726	·00274	103,635	6,679,809	64·37
9	103,493	290	·99720	·00280	103,348	6,671,173	64·45
10	103,203	245	·99763	·00237	103,080	6,662,561	64·53
11	102,958	214	·99792	·00208	102,851	6,653,971	64·63
Years—							
1	102,744	1,341	·98695	·01305	102,074	6,645,400	64·68
2	101,403	638	·99371	·00629	101,084	6,543,326	64·53
3	100,765	435	·99568	·00432	100,548	6,442,242	63·93
4	100,330	330	·99671	·00329	100,165	6,341,694	63·21
5	100,000	–	–	–	–	6,241,529	62·42
FEMALES							
Days—							
0-1	110,585	1,265	·98856	·01144	109,952	6,805,875	61·54
1-2	109,320	407	·99628	·00372	109,116	6,805,574	62·25
2-3	108,913	322	·99704	·00296	108,752	6,805,275	63·48
3-4	108,591	253	·99767	·00233	108,464	6,804,977	63·67
4-5	108,338	167	·99846	·00154	108,254	6,804,680	62·81
5-6	108,171	104	·99904	·00096	108,119	6,804,383	62·90
6-	108,067	85	·99921	·00079	108,024	6,804,087	62·96
Weeks—							
1	107,982	547	·99493	·00507	107,708	6,803,791	63·01
2	107,435	323	·99699	·00301	107,274	6,801,725	63·31
3	107,112	325	·99697	·00303	106,950	6,799,668	63·48
Months—							
1	106,787	718	·99328	·00672	106,428	6,797,139	63·65
2	106,069	632	·99404	·00596	105,753	6,788,270	64·00
3	105,437	544	·99484	·00516	105,165	6,779,458	64·30
4	104,893	465	·99557	·00443	104,660	6,770,694	64·35
5	104,428	368	·99648	·00352	104,244	6,761,972	64·75
6	104,060	279	·99732	·00268	103,920	6,753,255	64·90
7	103,781	349	·99664	·00336	103,606	6,744,625	64·99
8	103,432	301	·99709	·00291	103,282	6,735,991	65·12
9	103,131	263	·99745	·00255	103,000	6,727,384	65·23
10	102,868	149	·99855	·00145	102,794	6,718,801	65·31
11	102,719	190	·99815	·00185	102,625	6,710,335	65·37
Years—							
1	102,529	1,291	·98741	·01259	101,884	6,701,883	65·30
2	101,238	560	·99447	·00553	100,958	6,599,801	65·19
3	100,678	423	·99580	·00420	100,466	6,498,843	64·55
4	100,255	255	·99746	·00254	100,128	6,398,377	63·82
5	100,000	–	–	–	–	6,298,249	62·99

TABLE 3. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, taking births as published—Con.

Age z	Quebec						
	l_x	d_x	p_x	q_x	L_x	T_x	e_x

MALES

Age z	l_x	d_x	p_x	q_x	L_x	T_x	e_x
Days—							
0-1	118,329	2,275	·98077	·01923	117,192	6,588,670	55·68
1-2	116,054	634	·99454	·00546	115,737	5,588,355	56·77
2-3	115,420	510	·99558	·00442	115,155	6,588,038	57·08
3-4	114,910	340	·99704	·00296	114,749	6,587,722	57·33
4-5	114,570	216	·99812	·00188	114,452	6,587,408	57·50
5-6	114,355	186	·99837	·00163	114,252	6,587,094	57·60
6-7	114,169	161	·99859	·00141	114,088	6,586,781	57·69
Weeks—							
1	114,008	873	·99234	·00766	113,572	6,585,489	57·77
2	113,135	615	·99456	·00544	112,828	6,584,290	58·20
3	112,520	572	·99492	·00508	112,234	6,582,126	58·50
Months—							
1	111,948	1,560	·98599	·01401	111,164	6,579,473	58·77
2	110,379	1,353	·98774	·01226	109,702	6,570,209	59·52
3	109,026	935	·99142	·00858	108,558	6,551,087	60·18
4	108,091	777	·99281	·00719	107,702	6,532,021	60·62
5	107,314	700	·99348	·00652	106,964	6,542,046	50·97
6	106,514	583	·99453	·00547	106,322	6,534,132	61·29
7	106,031	506	·99523	·00477	105,778	6,525,272	51·54
8	105,525	469	·99564	·00436	105,295	6,516,457	61·75
9	105,056	434	·99587	·00413	104,848	6,507,682	61·94
10	104,631	343	·99672	·00328	104,450	6,495,945	52·11
11	104,288	299	·99713	·00287	104,138	6,490,240	62·23
Year—							
1	103,989	1,959	·98107	·01893	103,004	6,481,562	62·33
2	102,030	954	·99065	·00935	101,545	6,378,558	62·52
3	101,066	614	·99392	·00608	100,759	6,277,015	62·11
4	100,453	452	·99550	·00450	100,226	6,176,256	61·48
5	100,000				–	6,076,030	60·76

FEMALES

Age z	l_x	d_x	p_x	q_x	L_x	T_x	e_x
Days—							
0-1	114,659	1,563	·98637	·01363	113,878	6,579,912	57·38
1-2	113,096	521	·99539	·00461	112,836	6,579,000	58·18
2-3	112,575	368	·99673	·00327	112,074	6,579,360	58·44
3-4	112,207	266	·99763	·00237	112,074	6,578,962	58·63
4-5	111,941	155	·99861	·00139	111,863	6,578,675	58·77
5-6	111,785	135	·99888	·00112	111,722	6,578,389	58·85
6-7	111,650	109	·99902	·00098	111,595	6,578,053	58·91
Weeks—							
1	111,551	666	·99403	·00597	111,218	6,577,757	58·96
2	110,885	532	·99520	·00480	110,619	6,575,624	59·30
3	110,353	469	·99575	·00425	110,118	6,573,502	59·57
Months—							
1	109,884	1,135	·98956	·01024	109,315	6,570,999	59·80
2	108,748	1,150	·98942	·01058	108,173	5,581,789	60·34
3	107,598	735	·99317	·00683	107,230	6,552,778	60·90
4	106,863	627	·99413	·00587	106,550	6,543,338	61·23
5	106,236	548	·99484	·00516	105,962	6,534,960	61·61
6	105,688	489	·99537	·00463	105,444	6,526,130	61·75
7	105,199	369	·99630	·00370	105,004	6,517,343	61·95
8	104,810	367	·99650	·00350	104,626	6,508,602	62·10
9	104,443	334	·99680	·00320	104,276	5,499,874	52·23
10	104,109	297	·99715	·00285	103,959	6,491,184	52·33
11	103,812	248	·99761	·00239	103,688	5,482,521	52·44
Years—							
1	103,564	1,784	·98277	·01723	102,572	6,473,880	62·51
2	101,780	778	·99235	·00764	101,391	6,371,308	62·60
3	101,002	557	·99459	·00551	100,718	5,269,817	62·08
4	100,455	435	·99567	·00433	100,218	6,169,099	61·42
5	100,000				–	6,068,881	30·59

TABLE 3. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, taking births as published—Con.

MALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	$\overset{\circ}{e}_z$
Days—							
0-1	110,231	1,823	·98346	·01654	109,320	6,726,019	61·02
1-2	108,408	526	·99515	·00485	108,145	6,725,720	62·04
2-3	107,882	409	·99621	·00379	107,678	6,725,423	62·34
3-4	107,473	300	·99721	·00279	107,323	6,725,123	62·57
4-5	107,173	185	·99827	·00173	107,080	6,724,834	62·75
5-6	106,988	136	·99873	·00127	106,920	6,724,541	62·85
6-7	106,852	89	·99917	·00083	106,808	6,724,248	62·93
Weeks—							
1	106,763	474	·99556	·00444	106,526	6,723,955	62·98
2	106,289	334	·99686	·00314	106,122	6,721,912	63·24
3	105,955	295	·99721	·00279	105,778	6,719,377	63·42
Months—							
1	105,660	676	·99360	·00640	105,322	6,717,376	63·58
2	104,984	552	·99474	·00526	104,705	6,708,590	63·99
3	104,432	455	·99564	·00436	104,204	6,699,574	64·16
4	103,977	373	·99641	·00359	103,790	6,691,190	64·33
5	103,604	345	·99667	·00333	103,432	6,682,541	64·50
6	103,259	325	·99685	·00315	103,096	6,673,921	64·63
7	102,934	268	·99740	·00260	102,800	6,665,330	64·75
8	102,666	231	·99775	·00225	102,550	6,656,763	64·84
9	102,435	226	·99779	·00221	102,322	6,648,218	64·90
10	102,209	159	·99844	·00156	102,130	6,639,691	64·96
11	102,050	148	·99855	·00145	101,976	6,631,180	64·98
Years—							
1	101,902	919	·99098	·00902	101,442	6,622,682	64·99
2	100,983	439	·99565	·00435	100,764	6,521,240	64·58
3	100,544	316	·99687	·00313	100,389	6,420,476	63·88
4	100,228	228	·99772	·00228	100,114	6,320,090	63·06
5	100,000	—	—	—	—	6,219,976	62·20

FEMALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	$\overset{\circ}{e}_z$
Days—							
0-1	108,214	1,415	·98692	·01308	107,506	6,891,281	63·68
1-2	106,799	399	·99626	·00374	106,600	6,890,986	64·52
2-3	106,400	298	·99720	·00280	106,251	6,890,694	64·76
3-4	106,102	205	·99807	·00193	106,000	6,890,403	64·94
4-5	105,897	141	·99867	·00133	105,826	6,890,113	65·06
5-6	105,756	116	·99890	·00110	105,698	6,889,823	65·15
6-7	105,640	90	·99915	·00085	105,595	6,889,533	65·22
Weeks—							
1	105,550	378	·99642	·00358	105,361	6,889,244	65·27
2	105,172	258	·99755	·00245	105,043	6,887,228	65·48
3	104,914	251	·99761	·00239	104,788	6,885,306	65·63
Months—							
1	104,663	525	·99498	·00502	104,400	6,882,731	65·70
2	104,138	442	·99576	·00424	103,917	6,874,031	66·01
3	103,696	353	·99660	·00340	103,520	6,865,372	66·20
4	103,343	307	·99703	·00297	103,190	6,856,745	66·35
5	103,036	277	·99730	·00270	102,898	6,848,146	66·46
6	102,759	268	·99739	·00261	102,625	6,839,571	66·50
7	102,491	221	·99784	·00216	102,380	6,831,019	66·55
8	102,270	195	·99809	·00191	102,172	6,822,487	66·71
9	102,075	178	·99826	·00174	101,986	6,813,973	66·75
10	101,897	141	·99862	·00138	101,826	6,805,474	66·79
11	101,756	120	·99882	·00118	101,696	6,796,989	66·80
Years—							
1	101,636	810	·99203	·00797	101,231	6,788,514	66·79
2	100,826	368	·99635	·00365	100,642	6,687,283	66·32
3	100,458	257	·99744	·00256	100,330	6,586,641	65·55
4	100,201	201	·99799	·00201	100,100	6,486,311	64·73
5	100,000	—	—	—	—	6,386,211	63·86

TABLE 3. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, taking births as published—Con.

Age z	Prairie Provinces						
	l_z	d_z	p_z	q_z	L_z	T_z	e_z

MALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	e_z
Days—							
0-1	110,020	1,780	·98382	·01618	109,130	6,950,615	63·18
1-2	108,240	394	·99636	·00364	108,043	6,950,217	64·21
2-3	107,846	358	·99668	·00332	107,667	6,949,921	64·44
3-4	107,488	240	·99777	·00223	107,368	6,949,626	64·66
4-5	107,248	189	·99824	·00176	107,154	6,949,332	64·80
5-6	107,059	134	·99875	·00125	106,992	6,949,038	64·91
6	106,925	99	·99907	·00093	106,876	6,948,746	64·99
Weeks—							
1	106,826	526	·99508	·00492	106,663	6,948,463	65·04
2	106,300	391	·99632	·00368	106,104	6,946,408	65·35
3	105,909	305	·99711	·00289	105,759	6,944,373	65·67
Months—							
1	105,603	755	·99285	·00715	105,226	6,941,873	65·74
2	104,848	614	·99414	·00586	104,541	6,933,104	66·12
3	104,234	475	·99544	·00456	103,996	6,924,393	66·43
4	103,759	407	·99608	·00392	103,556	6,916,735	66·65
5	103,352	294	·99716	·00284	103,205	6,907,096	66·83
6	103,058	240	·99767	·00233	102,938	6,898,495	66·94
7	102,818	246	·99761	·00239	102,696	6,889,918	67·01
8	102,572	187	·99818	·00182	102,478	6,881,860	67·09
9	102,385	176	·99828	·00172	102,297	6,872,820	67·13
10	102,209	155	·99848	·00152	102,132	6,864,296	67·16
11	102,054	129	·99873	·00127	101,990	6,855,784	67·18
Years—							
1	101,925	853	·99163	·00847	101,494	6,847,283	67·18
2	101,072	475	·99530	·00470	100,834	6,746,791	66·75
3	100,597	351	·99651	·00349	100,412	6,644,957	66·06
4	100,236	236	·99765	·00235	100,118	6,544,555	65·29
5	100,000	-	-	-	-	6,444,437	64·44

FEMALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	e_z
Days—							
0-1	107,925	1,339	·98759	·01241	107,256	7,042,172	65·25
1-2	106,586	312	·99707	·00293	106,430	7,041,878	66·07
2-3	106,274	261	·99754	·00246	106,144	7,041,587	66·26
3-4	106,013	170	·99840	·00160	105,928	7,041,296	66·42
4-5	105,843	133	·99874	·00126	105,776	7,041,006	66·52
5-6	105,710	100	·99905	·00095	105,660	7,040,716	66·60
6	105,610	95	·99910	·00090	105,562	7,040,426	66·66
Weeks—							
1	105,515	405	·99616	·00384	105,312	7,040,137	66·72
2	105,110	293	·99721	·00279	104,964	7,038,117	66·96
3	104,817	242	·99769	·00231	104,696	7,036,104	67·13
Months—							
1	104,575	548	·99476	·00524	104,301	7,033,629	67·26
2	104,027	456	·99562	·00438	103,799	7,024,937	67·63
3	103,571	396	·99618	·00382	103,373	7,016,287	67·74
4	103,175	299	·99710	·00290	103,026	7,007,673	67·92
5	102,876	254	·99753	·00247	102,749	6,999,087	68·03
6	102,622	201	·99804	·00196	102,523	6,990,525	68·12
7	102,421	153	·99821	·00179	102,330	6,981,981	68·17
8	102,238	155	·99848	·00152	102,160	6,973,454	68·21
9	102,083	165	·99838	·00162	102,000	6,964,940	68·23
10	101,918	138	·99867	·00133	101,850	6,956,440	68·25
11	101,780	96	·99906	·00094	101,735	6,947,955	68·26
Years—							
1	101,687	764	·99249	·00751	101,305	6,939,475	68·24
2	100,923	404	·99600	·00400	100,721	6,838,170	67·76
3	100,519	312	·99690	·00310	100,363	6,737,449	67·03
4	100,207	207	·99793	·00207	100,104	6,637,086	66·23
5	100,000	-	-	-	-	6,536,982	65·37

TABLE 3. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, taking births as published—Con.

Age x	British Columbia						
	l_x	d_x	p_x	q_x	L_x	T_x	$\overset{\circ}{e}_x$

MALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	$\overset{\circ}{e}_x$
Days—							
0-1	107,951	1,226	.98864	-.01136	107,338	6,684,641	61·92
1-2	106,725	388	.99636	-.00364	106,531	6,684,347	63·63
2-3	106,337	341	.99679	-.00321	106,166	6,684,055	62·86
3-4	105,996	223	.99785	-.00215	105,883	6,683,764	63·06
4-5	105,768	127	.99880	-.00120	105,704	6,683,474	63·19
5-6	105,641	94	.99911	-.00089	105,694	6,683,184	63·26
6-	105,547	80	.99918	-.00082	105,504	6,682,895	63·32
Weeks—							
1	105,461	308	.99708	-.00292	105,307	6,682,606	63·37
2	105,153	181	.99828	-.00172	105,062	6,680,586	63·53
3	104,972	208	.99802	-.00198	104,868	6,678,571	63·62
Months—							
1	104,764	408	.99611	-.00389	104,560	6,676,092	63·75
2	104,356	348	.99667	-.00333	104,182	6,667,379	63·89
3	104,008	439	.99596	-.00404	103,788	6,658,097	64·02
4	103,588	320	.99691	-.00309	103,428	6,650,047	64·20
5	103,268	239	.99768	-.00232	103,148	6,641,428	64·31
6	103,029	253	.99754	-.00246	102,902	6,632,533	64·38
7	102,776	140	.99864	-.00136	102,706	6,624,258	64·45
8	102,636	119	.99884	-.00116	102,576	6,615,699	64·45
9	102,517	213	.99792	-.00208	102,410	6,607,151	64·45
10	102,304	113	.99890	-.00110	102,248	6,598,617	64·50
11	102,191	133	.99870	-.00130	102,124	6,590,090	64·49
Years—							
1	102,058	834	.99183	-.00817	101,641	6,581,586	64·49
2	101,224	495	.99511	-.00489	100,976	6,479,945	64·02
3	100,729	414	.99589	-.00411	100,522	6,378,969	63·33
4	100,315	315	.99686	-.00314	100,158	6,278,447	62·59
5	100,000	-	-	-	-	6,178,289	61·78

FEMALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	$\overset{\circ}{e}_x$
Days—							
0-1	106,535	1,046	.99018	-.00982	106,012	6,940,150	65·14
1-2	105,489	291	.99724	-.00276	105,344	6,939,360	66·75
2-3	105,198	282	.99730	-.00270	105,067	6,939,071	65·98
3-4	104,916	149	.99861	-.00139	104,842	6,939,283	66·13
4-5	104,789	132	.99874	-.00126	104,722	6,938,996	66·22
5-6	104,657	55	.99947	-.00053	104,630	6,938,709	66·30
6-	104,602	63	.99940	-.00060	104,571	6,938,422	66·33
Weeks—							
1	104,539	193	.99815	-.00185	104,443	6,938,136	66·37
2	104,346	90	.99914	-.00086	104,301	6,936,133	66·47
3	104,256	131	.99874	-.00126	104,191	6,934,132	66·51
Months—							
1	104,125	408	.99608	-.00392	103,921	6,931,669	66·57
2	103,489	353	.99660	-.00340	103,541	6,923,009	66·75
3	103,364	227	.99780	-.00220	103,251	6,914,381	66·89
4	103,137	172	.99833	-.00167	103,051	6,905,017	66·96
5	102,965	151	.99853	-.00147	102,890	6,897,189	66·98
6	102,814	173	.99832	-.00168	102,728	6,888,616	67·00
7	102,641	213	.99793	-.00207	102,535	6,880,054	67·03
8	102,428	166	.99838	-.00162	102,345	6,871,510	67·09
9	102,262	144	.99859	-.00141	102,190	6,864,455	67·11
10	102,118	138	.99865	-.00135	102,049	6,854,455	67·12
11	101,980	83	.99919	-.00081	101,939	6,845,961	67·13
Years—							
1	101,897	791	.99224	-.00776	101,502	6,837,466	67·10
2	101,106	368	.99636	-.00364	100,922	6,735,964	66·62
3	100,738	439	.99564	-.00436	100,519	6,635,042	65·98
4	100,299	299	.99702	-.00298	100,150	6,534,523	65·15
5	100,000	-	-	-	-	6,434,373	64·34

TABLE 4.　Canadian Life Table for ages zero to five, males and females, based on population 1931, deaths 1930–1932 and births 1926–1932, adding five p.c. to births as published to allow for incompleteness of registration

Age z	Canada						
	l_z	d_z	$\bar{p}_z$	q_z	L_z	T_z	$\mathring{e}_z$

MALES

Age z	l_z	d_z	$\bar{p}_z$	q_z	L_z	T_z	$\mathring{e}_z$
Days—							
0–1	112,318	1,818	.98381	-.01619	111,409	6,738,607	60·00
1–2	110,500	491	.99556	-.00444	110,254	6,738,362	60·98
2–3	110,009	413	.99625	-.00375	109,802	6,738,009	61·25
3–4	109,596	283	.99742	-.00258	109,454	6,737,699	61·48
4–5	109,313	190	.99826	-.00174	109,218	6,737,399	61·63
5–6	109,123	142	.99870	-.00130	109,052	6,737,100	61·74
6–7	108,981	113	.99896	-.00104	108,924	6,736,801	61·82
Weeks—							
1	108,868	583	.99464	-.00536	108,576	6,736,503	61·88
2	108,285	414	.99618	-.00382	108,078	6,734,415	62·19
3	107,871	367	.99660	-.00340	107,688	6,732,337	62·41
Months—							
1	107,504	960	.99107	-.00893	107,024	6,729,681	62·60
2	106,544	811	.99239	-.00761	106,138	6,720,782	63·08
3	105,733	608	.99425	-.00575	105,429	6,711,917	63·48
4	105,125	494	.99528	-.00472	104,877	6,703,131	63·76
5	104,631	431	.99588	-.00412	104,414	6,694,391	63·98
6	104,198	368	.99647	-.00353	104,014	6,685,690	64·16
7	103,830	323	.99689	-.00311	103,668	6,677,022	64·31
8	103,507	280	.99729	-.00271	103,367	6,668,383	64·42
9	103,227	273	.99736	-.00264	103,090	6,659,769	64·52
10	102,954	212	.99793	-.00206	102,845	6,651,178	64·60
11	102,742	190	.99815	-.00185	102,647	6,642,607	64·68
Years—							
1	102,552	1,217	.98813	-.01187	101,944	6,634,053	64·69
2	101,335	604	.99404	-.00596	101,033	6,532,109	64·46
3	100,731	414	.99589	-.00411	100,524	6,431,076	63·84
4	100,317	317	.99684	-.00316	100,158	6,330,552	63·11
5	100,000	–	–	–	–	6,230,394	62·30

FEMALES

Age z	l_z	d_z	$\bar{p}_z$	q_z	L_z	T_z	$\mathring{e}_z$
Days—							
0–1	109,891	1,337	.98783	-.01217	109,223	6,824,290	62·10
1–2	108,554	394	.99637	-.00363	108,357	6,823,991	62·88
2–3	108,160	296	.99726	-.00274	108,012	6,823,694	63·09
3–4	107,864	208	.99807	-.00193	107,760	6,823,398	63·28
4–5	107,656	138	.99872	-.00128	107,587	6,823,103	63·38
5–6	107,518	105	.99902	-.00098	107,466	6,822,808	63·46
6–7	107,413	91	.99915	-.00085	107,368	6,822,514	63·52
Weeks—							
1	107,322	462	.99570	-.00430	107,091	6,822,220	63·57
2	106,860	336	.99686	-.00314	106,692	6,820,101	63·83
3	106,524	305	.99714	-.00286	106,372	6,818,109	64·01
Months—							
1	106,219	707	.99343	-.00666	105,866	6,815,486	64·17
2	105,512	657	.99377	-.00623	105,184	6,806,664	64·51
3	104,855	475	.99547	-.00453	104,618	6,797,899	64·83
4	104,380	398	.99619	-.00381	104,181	6,789,181	65·04
5	103,982	345	.99668	-.00332	103,810	6,780,500	65·21
6	103,637	305	.99706	-.00294	103,485	6,771,850	65·34
7	103,332	265	.99744	-.00256	103,200	6,763,227	65·45
8	103,067	239	.99768	-.00232	102,946	6,754,627	65·54
9	102,828	220	.99786	-.00214	102,718	6,746,049	65·61
10	102,608	182	.99823	-.00177	102,517	6,737,459	65·66
11	102,426	152	.99852	-.00148	102,350	6,728,946	65·70
Years—							
1	102,274	1,105	.98920	-.01080	101,722	6,720,417	65·71
2	101,169	502	.99504	-.00496	101,018	6,618,695	65·42
3	100,667	376	.99626	-.00374	100,479	6,517,777	64·78
4	100,291	291	.99710	-.00290	100,140	6,417,298	63·99
5	100,000	–	–	–	–	6,317,152	63·17

TABLE 5. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, adding five p.c. to births as published to allow for incompleteness of registration

Age z	Maritime Provinces						
	l_z	d_z	p_z	q_z	L_z	T_z	$\overset{\circ}{e}_z$
MALES							
Days—							
0-1	112,117	1,621	.98554	.01446	111,306	6,749,798	60·20
1-2	110,496	448	.99595	.00405	110,272	6,749,493	61·08
2-3	110,048	471	.99572	.00428	109,812	6,749,191	61·33
3-4	109,577	316	.99712	.00288	109,419	6,748,990	61·59
4-5	109,261	248	.99775	.00225	109,135	6,748,690	61·77
5-6	109,015	131	.99880	.00120	108,959	6,748,291	61·90
6	108,884	131	.99880	.00120	108,818	6,747,992	61·97
Weeks—							
1	108,753	508	.99533	.00467	108,499	6,747,694	62·05
2	108,245	363	.99666	.00334	108,064	6,745,608	62·32
3	107,883	317	.99706	.00294	107,724	6,743,530	62·51
Months—							
1	107,566	999	.99071	.00929	107,066	6,741,874	62·67
2	106,567	860	.99197	.00803	106,139	6,731,952	63·17
3	105,711	663	.99374	.00626	105,380	6,723,107	63·60
4	105,049	478	.99547	.00453	104,811	6,714,339	63·92
5	104,573	417	.99601	.00399	104,364	6,705,593	64·13
6	104,156	310	.99697	.00303	103,999	6,696,893	64·30
7	103,840	303	.99708	.00292	103,688	6,688,229	64·41
8	103,537	257	.99753	.00247	103,408	6,679,589	64·51
9	103,280	262	.99746	.00254	103,149	6,670,972	64·59
10	103,018	220	.99786	.00214	102,908	6,662,377	64·67
11	102,798	191	.99814	.00186	102,702	6,653,802	64·73
Years—							
1	102,607	1,265	.98767	.01233	101,974	6,645,244	64·70
2	101,342	602	.99406	.00594	101,041	6,543,270	64·57
3	100,740	410	.99593	.00407	100,535	6,442,229	63·95
4	100,330	330	.99671	.00329	100,165	6,341,694	63·21
5	100,000					6,241,529	62·42
FEMALES							
Days—							
0-1	109,925	1,194	.98914	.01086	109,328	6,805,580	61·91
1-2	108,731	384	.99647	.00353	108,539	6,805,380	62·59
2-3	108,347	304	.99719	.00281	108,195	6,804,983	62·51
3-4	108,043	239	.99779	.00221	107,924	6,804,687	62·59
4-5	107,804	157	.99854	.00146	107,726	6,804,091	63·12
5-6	107,647	99	.99908	.00092	107,598	6,804,096	63·21
6	107,548	80	.99926	.00074	107,508	6,803,801	63·26
Weeks—							
1	107,468	516	.99523	.00480	107,210	6,803,506	63·31
2	106,952	303	.99717	.00283	106,800	6,801,444	63·60
3	106,649	304	.99715	.00285	106,497	6,799,390	63·76
Months—							
1	106,345	670	.99370	.00630	106,010	6,796,764	63·91
2	105,675	590	.99442	.00558	105,380	6,787,950	64·07
3	105,085	507	.99518	.00482	104,832	6,779,149	64·13
4	104,578	431	.99588	.00412	104,362	6,770,413	64·74
5	104,147	340	.99674	.00326	103,977	6,761,717	64·93
6	103,807	255	.99753	.00247	103,679	6,753,053	65·05
7	103,551	322	.99689	.00311	103,390	6,744,413	65·13
8	103,229	277	.99732	.00268	103,090	6,735,796	65·25
9	102,952	241	.99766	.00234	102,832	6,727,208	65·34
10	102,711	134	.99870	.00130	102,644	6,718,639	65·14
11	102,577	173	.99831	.00169	102,490	6,710,089	65·42
Years—							
1	102,404	1,220	.98809	.01191	101,794	6,701,548	65·44
2	101,184	529	.99477	.00523	100,920	6,599,732	65·23
3	100,655	400	.99603	.00397	100,455	6,498,532	64·57
4	100,255	255	.99746	.00254	100,128	6,398,377	63·82
5	100,000					6,298,249	62·98

TABLE 5. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, adding five p.c. to births as published to allow for incompleteness of registration—Con.

Quebec

MALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	$\overset{\circ}{e}_x$
Days—							
0-1	117,254	2,142	.98173	.01827	116,183	6,588,096	56·19
1-2	115,112	596	.99482	.00518	114,814	6,587,773	57·23
2-3	114,516	481	.99580	.00420	114,276	6,587,463	57·53
3-4	114,035	330	.99719	.00281	113,875	6,587,150	57·77
4-5	113,715	202	.99822	.00178	113,614	6,586,838	57·93
5-6	113,513	170	.99849	.00151	113,429	6,586,527	58·03
6-7	113,338	152	.99866	.00134	113,262	6,586,216	58·11
Weeks—							
1	113,186	821	.99275	.00725	112,776	6,585,906	58·19
2	112,365	579	.99485	.00515	112,076	6,583,737	58·59
3	111,786	537	.99520	.00480	111,518	6,581,582	58·88
Months—							
1	111,249	1,474	.98575	.01325	110,512	6,578,832	59·14
2	109,775	1,273	.98841	.01159	109,139	6,569,623	59·35
3	108,502	878	.99191	.00809	108,064	6,560,528	59·46
4	107,625	730	.99322	.00678	107,260	6,551,523	60·37
5	106,895	657	.99385	.00615	106,567	6,542,383	60·73
6	106,238	547	.99485	.00515	105,964	6,533,705	61·50
7	105,691	473	.99552	.00448	105,454	6,524,875	61·60
8	105,218	432	.99589	.00411	105,002	6,516,038	61·74
9	104,786	406	.99613	.00387	104,583	6,507,358	61·93
10	104,380	321	.99692	.00308	104,220	6,498,672	62·10
11	104,059	280	.99731	.00269	103,919	6,489,968	62·27
Years—							
1	103,779	1,852	.98215	.01785	102,353	6,431,328	62·45
2	101,927	897	.99120	.00880	101,478	6,373,475	62·56
3	101,030	578	.99428	.00572	100,741	6,276,997	62·13
4	100,452	452	.99550	.00450	100,226	6,176,256	61·49
5	100,000	–	–	–	–	6,076,030	60·76

FEMALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	$\overset{\circ}{e}_x$
Days—							
0-1	113,835	1,473	.98705	.01294	113,098	6,579,492	57·80
1-2	112,362	492	.99562	.00438	112,116	6,579,152	58·55
2-3	111,870	346	.99691	.00309	111,697	6,578,876	58·81
3-4	111,524	251	.99775	.00225	111,399	6,578,569	58·99
4-5	111,273	147	.99868	.00132	111,200	6,578,264	59·12
5-6	111,126	118	.99894	.00106	111,067	6,577,959	59·19
6-7	111,008	103	.99907	.00093	110,956	6,577,655	59·25
Weeks—							
1	110,905	628	.99434	.00566	110,591	6,577,351	59·30
2	110,277	501	.99546	.00454	110,026	6,575,224	59·62
3	109,776	441	.99598	.00402	109,556	6,573,108	59·88
Months—							
1	109,335	1,071	.99020	.00980	108,800	6,570,406	60·09
2	108,264	1,064	.99099	.00901	107,732	6,561,340	60·60
3	107,200	691	.99355	.00645	106,854	6,552,364	61·13
4	106,459	501	.99445	.00555	106,194	6,543,462	61·45
5	105,958	516	.99513	.00487	105,640	6,534,613	61·91
6	105,382	461	.99563	.00437	105,152	6,525,810	62·11
7	104,922	366	.99651	.00349	104,739	6,517,071	62·35
8	104,556	345	.99670	.00330	104,384	6,508,320	62·37
9	104,211	315	.99698	.00302	104,054	6,499,622	62·37
10	103,896	279	.99731	.00269	103,756	6,490,951	62·42
11	103,617	253	.99775	.00225	103,500	6,482,305	62·56
Years—							
1	103,334	1,632	.98373	.01627	102,543	6,473,680	62·62
2	101,702	733	.99279	.00721	101,336	6,371,137	62·54
3	100,959	534	.99471	.00529	100,702	6,269,301	62·10
4	100,435	436	.99567	.00433	100,213	6,169,099	61·42
5	100,000	–	–	–	–	6,068,881	60·69

TABLE 5. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, adding five p.c. to births as published to allow for incompleteness of registration—Con.

Age z			Ontario				
	l_z	d_z	p_z	q_z	L_z	T_z	$\overset{\circ}{e}_z$

MALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	$\overset{\circ}{e}_z$
Days—							
0-1	109,722	1,724	·98429	·01571	108,860	6,725,865	61·30
1-2	107,998	498	·99539	·00461	107,749	6,725,567	62·28
2-3	107,500	386	·99641	·00359	107,307	6,725,272	62·58
3-4	107,114	284	·99735	·00265	106,972	6,724,978	62·78
4-5	106,830	176	·99835	·00165	106,742	6,724,683	62·96
5-6	106,654	129	·99879	·00121	106,590	6,724,393	63·05
6-7	106,525	83	·99922	·00078	106,484	6,724,103	63·12
Weeks—							
1	106,449	449	·95578	·00422	106,218	6,723,809	63·17
2	105,993	319	·99702	·00298	105,833	6,721,766	63·43
3	105,677	280	·99735	·00265	105,637	6,719,731	63·59
Months—							
1	105,397	642	·99391	·00609	105,076	6,717,128	63·73
2	104,755	625	·99499	·00501	104,492	6,708,372	64·04
3	104,230	434	·99584	·00416	104,013	6,699,065	64·26
4	103,796	336	·99657	·00343	103,618	6,690,995	64·45
5	103,460	329	·99682	·00318	103,276	6,682,364	64·60
6	103,111	311	·99698	·00302	102,956	6,673,755	64·72
7	102,800	256	·99751	·00249	102,672	6,665,179	64·84
8	102,544	221	·99784	·00216	102,434	6,656,623	64·92
9	102,323	217	·99788	·00212	102,214	6,648,087	64·97
10	102,106	154	·99849	·00161	102,029	6,639,570	65·03
11	101,952	142	·99861	·00139	101,881	6,631,068	65·04
Years—							
1	101,810	868	·99147	·00853	101,376	6,622,578	65·05
2	100,942	-415	·99589	·00411	100,734	6,521,202	64·60
3	100,527	298	·99704	·00296	100,378	6,420,468	63·87
4	100,229	229	·99772	·00228	100,114	6,320,090	63·06
5	100,000	—	—	—	—	6,219,976	62·20

FEMALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	$\overset{\circ}{e}_z$
Days—							
0-1	107,803	1,340	·98757	·01243	107,133	6,891,167	63·92
1-2	106,463	377	·99646	·00354	106,275	6,890,873	64·73
2-3	106,086	283	·99732	·00267	106,944	6,890,582	64·95
3-4	105,803	193	·99818	·00182	105,706	6,890,292	66·13
4-5	105,610	134	·99873	·00127	105,543	6,890,002	65·24
5-6	105,476	110	·99896	·00104	105,421	6,889,712	65·33
6-7	105,366	85	·99919	·00081	105,324	6,880,424	65·38
Weeks—							
1	105,281	359	·99639	·00261	105,102	6,889,135	66·44
2	104,922	244	·99767	·00233	104,800	6,887,114	66·64
3	104,678	238	·99773	·00227	104,650	6,885,099	66·77
Months—							
1	104,440	499	·99522	·00478	104,190	6,882,521	65·90
2	103,941	419	·99597	·00403	103,732	6,873,839	66·13
3	103,522	335	·99676	·00324	103,354	6,865,195	66·32
4	103,187	292	·99717	·00283	103,041	6,856,583	66·45
5	102,895	264	·99743	·00257	102,763	6,847,997	66·55
6	102,631	266	·99732	·00268	102,504	6,830,434	66·64
7	102,376	211	·99794	·00206	102,270	6,830,399	66·72
8	102,165	186	·99818	·00182	102,072	6,822,370	66·78
9	101,979	170	·99833	·00167	101,894	6,813,594	66·82
10	101,809	136	·99867	·00133	101,742	6,805,373	66·84
11	101,674	115	·99887	·00113	101,616	6,795,895	66·84
Years—							
1	101,569	767	·99245	·00755	101,176	6,788,427	66·84
2	100,792	248	·99655	·00345	100,618	6,687,251	66·36
3	100,544	243	·99768	·00242	100,322	6,586,638	65·67
4	100,301	201	·99799	·00201	100,100	6,485,311	64·78
5	100,000	—	—	—	—	6,386,311	63·86

TABLE 5. Life Tables for regional divisions of Canada for ages zero to five, males and females, based on population 1931, deaths 1930-1932 and births 1926-1932, adding five p.c. to births as published to allow for incompleteness of registration—Con.

Age z	Prairie Provinces						
	l_z	d_z	p_z	q_z	L_z	T_z	e_z

MALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	e_z
Days—							
0-1	109,500	1,684	.98463	.01538	108,658	6,950,252	63·47
1-2	107,816	372	.99655	.00345	107,630	6,950,054	64·46
2-3	107,444	338	.99685	.00315	107,275	6,949,759	64·68
3-4	107,106	227	.99788	.00212	106,993	6,949,465	64·89
4-5	106,879	179	.99833	.00167	106,790	6,949,172	65·02
5-6	106,700	126	.99882	.00118	106,637	6,948,379	65·13
6-	106,574	95	.99911	.00089	106,526	6,948,587	65·20
Weeks—							
1	106,479	497	.99533	.00467	105,390	6,948,295	65·26
2	105,982	370	.99651	.00349	105,797	6,946,353	65·64
3	105,612	290	.99725	.00275	105,467	6,944,233	65·75
Months—							
1	105,322	715	.99321	.00679	104,964	6,941,017	65·91
2	104,607	583	.99444	.00556	104,316	6,933,570	66·28
3	104,025	450	.99567	.00433	103,800	6,924,177	66·56
4	103,575	385	.99628	.00372	103,383	6,915,327	66·77
5	103,190	379	.99730	.00270	103,000	6,906,913	66·94
6	102,811	228	.99778	.00222	102,797	6,895,325	67·03
7	102,683	233	.99773	.00227	102,566	6,889,780	67·10
8	102,450	178	.99820	.00180	102,361	6,881,212	67·17
9	102,272	167	.99837	.00163	102,188	6,872,682	67·20
10	102,105	148	.99855	.00145	102,031	6,864,167	67·23
11	101,957	124	.99878	.00122	101,895	6,855,665	67·24
Years—							
1	101,833	816	.99199	.00801	101,425	6,847,174	67·24
2	101,017	449	.99556	.00444	100,792	6,745,749	66·75
3	100,568	332	.99670	.00330	100,402	6,644,957	66·08
4	100,236	236	.99765	.00235	100,118	6,544,555	65·29
5	100,000	–	–	–	..	6,444,437	64·45

FEMALES

Age z	l_z	d_z	p_z	q_z	L_z	T_z	e_z
Days—							
0-1	107,522	1,268	.98821	.01179	106,888	7,042,044	65·49
1-2	106,254	298	.99721	.00279	106,106	7,041,751	66·37
2-3	106,038	242	.99766	.00234	105,834	7,041,460	66·45
3-4	105,718	160	.99849	.00151	105,630	7,041,170	66·61
4-5	105,550	127	.99880	.00120	105,486	7,040,881	66·71
5-6	105,423	95	.99910	.00090	105,378	7,040,592	66·78
6-	105,326	90	.99915	.00085	105,283	7,040,303	66·84
Weeks—							
1	105,238	343	.99636	.00364	105,048	7,040,015	66·89
2	104,855	378	.99735	.00265	104,716	7,037,965	67·12
3	104,677	236	.99780	.00220	104,402	7,035,981	67·28
Months—							
1	104,347	519	.99503	.00497	104,088	7,033,405	67·40
2	103,828	433	.99583	.00417	103,612	7,024,731	67·66
3	103,395	378	.99634	.00366	103,207	7,016,097	67·86
4	103,019	263	.99725	.00275	102,878	7,007,497	68·02
5	102,739	241	.99745	.00255	102,614	6,998,924	68·12
6	102,495	191	.99814	.00186	102,400	6,990,373	68·20
7	102,304	174	.99830	.00170	102,217	6,981,840	68·24
8	102,130	148	.99833	.00145	102,056	6,973,322	68·28
9	101,982	157	.99846	.00154	101,904	6,964,818	68·29
10	101,825	129	.99873	.00127	101,760	6,956,326	68·32
11	101,690	91	.99911	.00089	101,650	6,947,846	68·32
Years—							
1	101,605	722	.99289	.00711	101,244	6,939,370	68·30
2	100,883	581	.99422	.00578	100,622	6,838,132	67·73
3	100,302	395	.99606	.00394	100,105	6,737,440	67·04
4	100,207	207	.99793	.00207	100,104	6,637,086	66·23
5	100,000	–	–	–	..	6,536,982	65·37

TABLE 5. Life Tables for regional divisions of Canada, for ages zero to five, males and females, based on population 1931, deaths 1930–1932 and births 1926–1932, adding five p.c. births as published to allow for incompleteness of registration—Con.

Age x	British Columbia						
	l_x	d_x	p_x	q_x	L_x	T_x	$e°_x$

MALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	$e°_x$
Days—							
0-1	107,657	1,160	.98922	.01078	106,977	6,684,487	62·15
1-2	106,497	368	.99654	.00346	106,213	6,684,194	62·82
2-3	106,029	323	.99695	.00305	105,868	6,683,902	63·04
3-4	105,706	216	.99796	.00204	105,698	6,683,613	63·23
4-5	105,490	120	.99886	.00114	105,430	6,683,324	63·36
5-6	105,370	89	.99916	.00084	105,326	6,683,036	63·42
6-7	105,281	85	.99921	.00079	105,240	6,682,746	63·48
Weeks—							
1	105,196	291	.99723	.00277	105,052	6,682,458	63·62
2	104,907	172	.99836	.00164	104,821	6,680,438	63·06
3	104,735	196	.99813	.00187	104,637	6,678,422	63·77
Months—							
1	104,639	387	.99630	.00370	104,349	6,676,842	63·86
2	104,162	330	.99683	.00317	103,987	6,667,147	64·01
3	103,822	399	.99618	.00382	103,628	6,658,482	64·13
4	103,423	305	.99705	.00295	103,276	6,649,847	64·30
5	103,118	228	.99770	.00230	103,004	6,641,241	64·40
6	102,890	241	.99760	.00240	102,770	6,632,558	64·46
7	102,649	133	.99870	.00130	102,582	6,624,094	64·53
8	102,516	114	.99889	.00111	102,459	6,615,549	64·63
9	102,402	203	.99802	.00198	102,300	6,607,008	64·62
10	102,199	108	.99894	.00106	102,146	6,598,453	64·66
11	102,091	127	.99876	.00124	102,028	6,589,971	64·65
Year—							
1	101,964	789	.99226	.00774	101,570	6,581,469	64·66
2	101,176	468	.99537	.00463	100,941	6,479,899	64·05
3	100,707	392	.99611	.00389	100,611	6,378,958	63·34
4	100,315	315	.99686	.00314	100,158	6,278,447	62·59
5	100,000	–	–	–	–	6,178,289	61·78

FEMALES

Age x	l_x	d_x	p_x	q_x	L_x	T_x	$e°_x$
Days—							
0-1	106,217	991	.99067	.00933	105,723	8,940,023	66·34
1-2	105,226	276	.99739	.00261	105,088	8,939,733	65·95
2-3	104,951	259	.99753	.00247	104,826	8,939,446	66·12
3-4	104,701	138	.99868	.00132	104,638	8,939,158	66·28
4-5	104,563	124	.99881	.00119	104,501	8,938,571	66·35
5-6	104,439	53	.99949	.00051	104,412	8,938,686	66·44
6-7	104,386	59	.99943	.00057	104,356	8,938,399	66·47
Weeks—							
1	104,327	184	.99824	.00176	104,235	8,938,013	66·50
2	104,143	85	.99918	.00082	104,100	8,936,009	66·60
3	104,058	125	.99880	.00120	103,999	8,934,007	66·64
Months—							
1	103,933	387	.99628	.00372	103,740	8,931,449	66·69
2	103,546	387	.99676	.00324	103,378	8,922,797	66·68
3	103,211	217	.99790	.00210	103,102	8,914,153	66·99
4	102,994	144	.99841	.00159	102,921	8,905,592	67·05
5	102,850	144	.99860	.00140	102,768	8,897,016	67·07
6	102,686	164	.99840	.00160	102,604	8,888,463	67·08
7	102,622	204	.99801	.00199	102,420	8,879,903	67·11
8	102,318	157	.99847	.00153	102,240	8,871,368	67·16
9	102,161	138	.99865	.00135	102,092	8,854,341	67·18
10	102,023	131	.99872	.00128	101,958	8,854,341	67·18
11	101,892	79	.99922	.00078	101,852	8,845,846	67·19
Year—							
1	101,813	749	.99264	.00264	101,438	8,837,368	67·16
2	101,064	349	.99655	.00345	100,890	8,735,920	66·65
3	100,715	410	.99593	.00413	100,507	8,635,030	65·88
4	100,299	209	.99702	.00298	100,190	8,534,623	66·16
5	100,000	–	–	–	–	8,434,373	64·34

TABLE 6. Comparison of Canadian Life Table[1] (ages 0-5) with most recent official tables of England and the United States

Age z	Probability of Dying Within One Year (qz)						Probability of Living 10 Years (10px)					
	Males			Females			Males			Females		
	Canadian Life Table No. 10	English Life Table No. 10	United States Life Table 1930	Canadian Life Table No. 10	English Life Table No. 10	United States Life Table 1930	Canadian Life Table No. 10	English Life Table No. 10	United States Life Table 1930	Canadian Life Table No. 10	English Life Table No. 10	United States Life Table 1930
0	·09155	·07186	·06232	·07297	·05455	·04963	·87512	·89023	·90810	·89729	·91082	·92466
1	·01257	·01530	·00993	·01142	·01343	·00573	·96177	·95775	·96704	·96874	·96657	·97156
2	·00631	·00657	·00520	·00395	·00407	·00326	·97353	·97133	·97528	·97526	·97384	·97905
3	·00436	·00441	·00359	·00290	·00336	·00268	·97722	·97632	·97884	·97822	·97744	·97983
4	·00316	·00359	·00290	·00239	·00282	·00228	·97990	·97916	·98069	·98055	·98016	·98094
5	·00262	·00343	·00266	·00230	·00293	·00220	·98122	·98103	·98186	·98349	·98377	·98582

Age z	Number Alive at Each Age Out of 100,000						Complete Expectation of Life (ex)					
	Males			Females			Males			Females		
	Canadian	English	United States	Canadian	English	United States	Canadian	English	United States	Canadian	English	United States
0	113,035	111,026	109,000	110,449	108,667	107,278	59·52	58·74	59·12	61·70	62·88	62·67
1	102,657	103,045	102,213	102,389	102,739	101,954	64·31	62·35	62·04	65·64	65·48	64·93
2	101,366	101,471	101,198	101,986	101,571	101,424	64·42	62·21	61·65	65·39	65·37	64·30
3	100,755	100,805	100,671	100,669	100,743	101,092	33·88	61·62	60·97	64·73	64·76	63·79
4	100,317	100,351	100,311	100,291	100,337	100,258	63·11	50·99	60·19	33·99	64·03	63·00
5	100,000	100,000	100,000	100,000	100,000	100,000	62·30	60·11	59·38	63·17	63·24	62·17

[1] Table 2, Page 133.

TABLE 7. Recent rates of mortality in various countries (ages 0-5)

1,000x

Age x	Sweden 1921-30		Norway 1926-30		Denmark 1921-30		Finland 1921-30		Germany 1924-26		Netherlands 1921-30		France 1920-23	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0	64·72	50·52	55·10	44·10	91·30	71·12	99·83	93·92	115·38	93·93	65·28	50·62	108·32	88·21
1	11·39	9·59	9·01	8·11	10·56	8·98	25·73	14·93	16·19	14·93	14·83	13·12	20·70	19·18
2	4·90	4·50	4·54	3·94	3·91	3·72	11·26	6·74	6·36	5·74	6·25	5·33	8·39	5·88
3	8·28	3·04	3·16	2·54	2·56	2·12	7·51	5·62	4·04	3·52	3·99	3·36	5·85	5·83
4	2·89	2·59	2·54	2·11	2·06	1·80	5·08	2·85	3·18	2·86	3·13	2·66	4·04	4·71
5	2·32	2·28	2·24	1·79	1·68	1·67	4·57	2·19	3·42	2·19	2·42	2·19	3·48	3·78

Age x	Switzerland 1921-30		Italy 1930-32		Japan 1921-25		India 1921-30		South Africa 1925-27		Australia 1932-34		Canada 1930-32	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0	66·53	52·45	115·32	102·25	182·04	144·00	248·7	232·3	74·44	62·76	45·43	36·42	91·55	72·97
1	10·13	9·13	38·97	39·05	48·45	47·57	91·8	86·5	18·70	18·38	7·75	6·45	12·57	11·42
2	4·90	4·59	13·42	13·13	26·27	26·42	56·6	50·6	8·08	7·36	3·78	3·29	6·31	6·35
3	3·42	3·25	7·42	7·19	16·65	17·41	39·2	34·0	4·71	4·14	2·87	2·41	4·36	3·95
4	2·88	2·56	5·12	4·89	10·59	11·46	27·4	23·3	3·46	3·43	2·14	2·08	3·16	2·90
5	2·18	2·24	3·68	3·66	7·04	7·75	19·3	16·5	2·92	2·37	1·84	1·58	2·62	2·32

TABLE 8. Canadian Life Table (ages 0-5): (1) males, (2) females, 3 p.c. commutation columns

Age z	Dz	Nz	Sz	Cz	Mz	Rz
MALES						
0	113,035·00	2,894,241·78	68,676,229·71	10,046·6010	28,736·8949	893,963·3356
1	99,696·11	2,781,206·78	65,781,987·93	1,216·8013	18,690·0949	865,226·4409
2	95,579·45	2,681,510·67	63,000,782·15	555·5906	17,473·2036	846,536·4450
3	92,206·01	2,585,935·22	50,319,271·48	580·5107	16,887·6130	829,063·2424
4	89,130·35	2,493,729·21	57,733,336·26	273·4470	16,497·4672	812,175·7294
5	86,280·88	2,404,598·86	55,239,607·05	219·4209	16,224·0202	795,678·2622
FEMALES						
0	110,449·00	2,902,456·30	69,381,334·77	7,825·2427	25,911·4415	881,640·8692
1	99,406·79	2,792,007·30	66,478,878·57	1,101·8946	18,086·1988	855,729·2277
2	95,409·55	2,692,600·41	63,586,871·37	455·9402	16,984·3042	837,643·0289
3	92,144·09	2,597,190·86	60,994,270·96	353·6178	16,498·3640	820,658·7247
4	89,107·23	2,505,046·17	58,397,080·10	251·0192	16,144·7462	804,160·3607
5	86,260·88	2,415,938·94	55,892,033·93	194·2963	15,893·7270	788,015·6145

TABLE 9. Order of birth of legitimate children (including stillbirths) born in Canada, 1927-1936, by age group of mother

Age Group of Mother and Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
All ages	234,507	236,722	235,065	242,710	239,294	234,097	220,914	219,331	219,208	217,755
1st child	49,612	52,107	54,372	57,736	55,488	52,067	48,396	49,165	52,951	55,386
2nd "	40,927	41,847	42,965	45,717	45,710	45,053	42,274	41,294	41,027	41,365
3rd "	32,694	32,649	32,380	33,157	33,233	33,037	32,000	31,429	30,544	29,139
4th "	26,135	25,302	24,568	24,389	24,905	24,530	23,000	23,339	23,111	22,120
5th "	20,898	20,417	19,122	19,097	18,572	18,597	17,603	17,451	17,155	16,766
6th "	15,951	16,093	15,351	15,567	14,530	14,334	13,799	13,551	13,180	12,756
7th "	12,316	12,407	12,031	12,161	11,930	11,606	10,703	10,636	10,254	10,712
8th "	9,721	9,678	9,203	9,443	9,457	9,300	8,593	8,406	8,122	7,816
9th "	7,460	7,379	6,945	7,243	7,099	7,312	6,710	6,816	6,132	6,055
10th "	5,760	5,682	5,496	5,536	5,628	5,523	5,323	5,327	4,941	4,813
11th "	4,183	4,132	3,966	4,001	3,939	3,984	3,846	3,744	3,803	3,628
12th "	2,994	3,191	2,841	2,944	3,022	2,971	2,789	2,763	2,724	2,710
13th "	2,058	2,075	2,050	2,085	1,978	2,054	1,936	1,928	1,868	1,836
14th "	1,358	1,291	1,291	1,381	1,356	1,385	1,193	1,279	1,224	1,222
15th "	895	864	870	810	834	868	803	843	789	771
16th "	534	505	515	518	438	480	481	481	455	455
17th "	329	312	232	303	267	304	274	248	296	275
18th "	176	201	168	162	172	143	180	165	144	129
19th "	57	96	104	84	52	58	65	78	77	83
20th and over "	101	119	85	102	100	96	88	106	92	178
Not stated	314	375	436	421	313	242	205	302	289	231
Under 20 years	11,474	12,128	12,523	13,053	12,911	12,477	11,598	11,216	11,393	11,172
1st child	8,526	9,219	9,471	9,981	9,653	9,205	8,676	8,344	8,619	8,613
2nd "	2,460	2,381	2,537	2,609	2,727	2,742	2,509	2,363	2,314	2,193
3rd "	408	453	426	470	458	455	451	442	386	397
4th "	61	61	48	70	62	62	42	67	57	54
5th "	14	8	10	9	7	8	9	-	2	6
6th "	2	2	1	6	-	4	-	-	1	3
Not stated	3	2	8	6	4	1	4	-	4	5
20-24 years	55,112	56,753	58,137	60,876	59,566	57,650	53,970	53,200	54,131	54,561
1st child	22,400	23,768	24,936	26,672	25,224	23,304	21,670	21,968	23,855	24,852
2nd "	16,394	16,699	17,295	18,327	18,390	18,245	16,871	16,025	15,645	15,606
3rd "	9,266	9,297	9,353	9,431	9,750	9,589	9,327	9,122	8,608	8,109
4th "	4,472	4,257	4,201	4,221	4,357	4,313	4,088	4,021	3,907	3,725
5th "	1,755	1,703	1,492	1,510	1,556	1,460	1,379	1,447	1,411	1,362
6th "	567	554	528	463	433	432	442	436	410	401
7th "	160	153	170	150	133	119	112	121	114	122
8th "	46	56	52	38	40	43	31	21	40	31
9th "	27	19	13	22	16	14	14	12	13	10
10th "	10	7	10	4	10	4	4	3	5	4
11th "	1	1	19	2	-	-	4	2	2	5
Not stated	20	9	23	36	22	32	24	18	29	31
25-29 years	63,517	63,853	64,397	66,067	66,212	65,297	62,255	61,901	62,387	61,977
1st child	11,966	12,414	13,135	14,135	13,826	13,007	12,167	12,636	13,796	14,904
2nd "	12,680	13,144	13,653	14,635	14,977	14,735	14,051	13,889	13,907	13,990
3rd "	11,023	11,001	11,743	12,045	12,363	12,427	12,180	11,790	11,665	10,733
4th "	10,606	9,706	9,414	9,469	9,708	9,675	9,300	9,221	9,162	8,647
5th "	7,637	7,407	6,992	6,876	6,797	6,334	6,602	6,610	6,413	6,294
6th "	4,797	4,880	4,657	4,495	4,256	4,266	4,134	3,987	3,960	3,872
7th "	2,652	2,587	2,553	2,538	2,407	2,392	2,127	2,147	1,988	2,033
8th "	1,186	1,182	1,168	1,130	1,152	1,188	988	1,002	945	907
9th "	534	509	465	447	424	425	407	407	375	337
10th "	196	212	204	177	181	154	145	150	144	143
11th "	72	67	78	69	56	56	43	55	45	45
12th "	39	49	30	21	23	27	21	18	20	21
13th "	12	11	10	10	13	6	5	10	11	6
14th "	-	-	2	1	-	1	4	2	6	1
15th "	-	4	2	3	2	3	1	3	-	3
16th "	-	-	5	2	-	-	-	-	3	-
Not stated	17	15	21	41	29	20	25	33	37	36
30-34 years	53,121	53,120	49,440	50,944	50,243	49,996	46,533	47,041	45,963	45,550
1st child	4,531	4,563	4,614	4,949	4,952	4,492	4,204	4,459	4,823	5,291
2nd "	6,397	6,402	6,370	6,671	6,617	6,570	6,174	6,426	6,471	6,525
3rd "	7,190	7,039	6,882	7,093	6,859	6,872	6,633	6,669	6,328	6,438
4th "	6,854	6,716	6,062	6,685	6,616	6,290	6,246	6,141	6,066	5,974
5th "	6,578	6,303	6,043	6,124	6,064	5,814	5,643	5,556	5,601	5,349
6th "	5,679	5,553	5,442	5,360	5,365	5,225	5,046	5,027	4,850	4,720
7th "	4,836	4,671	4,693	4,749	4,801	4,548	4,292	4,210	4,067	4,013
8th "	3,727	3,765	3,518	3,677	3,712	3,611	3,315	3,347	3,108	3,009
9th "	2,446	2,407	2,379	2,356	2,439	2,340	2,345	2,316	2,024	2,090
10th "	1,486	1,492	1,456	1,457	1,469	1,464	1,431	1,458	1,269	1,255
11th "	788	765	744	787	835	768	721	766	670	661
12th "	380	418	373	370	408	377	301	367	339	350
13th "	181	175	175	166	151	179	179	147	144	150
14th "	90	90	77	71	-	57	63	60	67	62
15th "	83	43	40	31	80	38	23	33	24	26

TABLE 9. Order of birth of legitimate children (including stillbirths) born in Canada, 1927-1936, by age group of mother—Con.

Age Group of Mother and Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
30-34 years—Con.										
16th child	9	7	19	18	10	12	9	14	13	3
17th "	6	7	6	8	5	13	10	5		7
18th "		4	4	7	5	5	4		4	1
19th "		2	2	2	1	2	4			1
20th and over		6	1		-	-	2			3
Not stated	20		13	13	26	29	23	17	23	22
35-39 years	**36,570**	**36,157**	**34,579**	**35,543**	**34,705**	**34,122**	**33,244**	**31,455**	**31,339**	**30,662**
1st child	1,652	1,571	1,550	1,521	1,560	1,479	1,418	1,425	1,501	1,503
2nd "	2,439	2,416	2,293	2,440	2,441	2,370	2,182	2,100	2,193	2,202
3rd "	3,175	3,332	3,141	3,310	3,131	2,895	2,819	2,709	2,813	2,802
4th "	3,707	3,526	3,445	3,497	3,353	3,340	3,101	2,959	2,994	2,898
5th "	3,723	3,707	3,508	3,418	3,372	3,373	3,096	2,963	2,953	2,846
6th "	3,655	3,563	3,450	3,545	3,374	3,276	3,167	3,083	3,022	2,832
7th "	3,528	3,370	3,353	3,454	3,451	3,316	3,089	2,989	2,989	2,908
8th "	3,439	3,390	3,304	3,311	3,272	3,333	3,066	3,026	2,875	2,792
9th "	3,176	3,050	3,028	3,032	2,972	3,047	2,749	2,912	2,600	2,647
10th "	3,029	2,675	2,454	2,528	2,531	2,538	2,495	2,431	2,390	2,274
11th "	1,973	1,955	1,892	1,889	1,814	1,814	1,877	1,830	1,920	1,748
12th "	1,390	1,486	1,332	1,427	1,389	1,378	1,307	1,306	1,289	1,393
13th "	922	867	919	914	895	969	843	845	817	843
14th "	515	496	489	564	561	557	472	477	455	467
15th "	298	276	291	283	270	308	178	207	267	283
16th "	167	160	162	147	160	129	160	135	131	132
17th "	90	88	77	68	70	78	57	55	69	66
18th "	39	50	33	39	48	34	35	46	29	18
19th "	20	19	26	18	12	19	17	15	19	17
20th and over	20	21	19	26	16	21	18	20	5	12
Not stated	10	13	13	25	13	20	13	17	19	16
40-44 years	**14,435**	**14,485**	**13,929**	**14,257**	**13,602**	**13,777**	**12,585**	**12,779**	**12,299**	**12,142**
1st child	391	380	353	398	342	345	290	302	285	285
2nd "	559	515	530	613	512	432	441	466	428	436
3rd "	726	700	754	549	643	673	626	550	604	509
4th "	902	924	840	899	837	817	748	535	782	766
5th "	1,007	920	997	1,075	955	1,015	834	859	804	850
6th "	1,119	1,137	1,100	1,063	999	1,047	935	910	891	858
7th "	1,160	1,096	1,143	1,172	1,049	1,136	1,046	999	978	953
8th "	1,210	1,209	1,155	1,153	1,171	1,104	1,082	1,040	1,009	987
9th "	1,141	1,261	1,152	1,252	1,143	1,188	1,073	1,072	969	1,038
10th "	1,296	1,282	1,350	1,243	1,322	1,303	1,126	1,160	1,081	1,027
11th "	1,204	1,178	1,105	1,119	1,113	1,152	1,068	1,035	1,064	1,064
12th "	1,033	1,120	971	1,001	1,067	1,043	941	931	934	929
13th "	825	902	839	850	790	840	789	791	794	772
14th "	601	512	535	561	648	648	565	539	564	562
15th "	454	456	462	428	450	447	417	455	429	391
16th "	289	284	296	294	265	273	268	284	253	268
17th "	195	175	175	196	168	174	174	131	191	166
18th "	114	118	103	89	94	86	84	99	47	82
19th "	50	70	59	51	50	51	36	54	42	47
20th and over	59	57	40	61	67	58	54	64	64	60
Not stated	7	4	2	8	10	4	1	7	5	6
45 years and over	**1,597**	**1,553**	**1,439**	**1,500**	**1,469**	**1,549**	**1,471**	**1,355**	**1,636**	**1,263**
1st child	40	22	29	37	27	13	18	25	29	16
2nd "	33	29	22	37	29	26	29	15	29	18
3rd "	50	55	49	50	64	42	45	32	36	35
4th "	69	75	53	60	52	54	67	53	34	51
5th "	88	56	73	75	79	85	61	59	73	55
6th "	95	95	115	106	75	101	83	94	61	61
7th "	103	112	107	93	95	94	94	85	96	82
8th "	120	111	111	96	109	114	109	95	112	97
9th "	127	121	123	120	105	100	122	101	110	103
10th "	133	144	120	123	141	137	130	125	135	118
11th "	140	161	124	134	138	155	138	118	130	108
12th "	148	119	133	124	134	143	128	141	141	115
13th "	78	130	97	136	99	117	119	114	101	91
14th "	99	87	79	100	104	113	84	98	108	71
15th "	79	82	74	66	73	84	83	58	67	56
16th "	68	62	42	67	33	48	54	57	39	39
17th "	37	43	23	33	26	39	33	30	24	38
18th "	21	28	28	27	27	18	37	35	18	15
19th "	17		8	18	10	19	20	12	9	15
20th and over	22	35	19	16	16	17	11	20	23	1
Not stated	2			1			1	2	1	-
Age not stated	**681**	**732**	**621**	**453**	**307**	**229**	**197**	**294**	**248**	**189**
1st child	106	140	84	45	32	29	22	16	27	22
2nd "	62	62	39	39	17	24	18	20	14	14
3rd "	56	52	32	31	10	15	10	16	4	41

TABLE 9. Order of birth of legitimate children (including stillbirths) born in Canada, 1927-1936, by age group of mother—Con.

Age Group of Mother and Order of Birth of Child	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Age not stated—Con.										
4th child	43	37	32	18	16	8	8	12	9	5
5th "	36	33	22	10	13	8	6	8	11	4
6th "	32	23	21	10	4	7	2	4	7	9
7th "	29	18	8	4	4	2	2	4	5	5
8th "	23	20	12	7	4	4	2	4	-	3
9th "	9	12	5	4	-	-	3	-	-	-
10th "	10	10	8	4	1	3	-	2	2	-
11th "	16	1	4	1	1	-	1	-	-	1
12th "	4	2	2	1	1	-	1	4	2	1
13th "	3	-	1	-	-	-	-	1	-	-
14th "	3	1	1	-	-	1	-	1	-	-
15th "	1	1	-	-	-	-	1	-	-	1
16th "	1	-	-	-	-	-	-	-	-	-
17th "	1	-	-	-	-	-	-	1	-	-
18th "	1	1	-	-	-	-	-	-	-	-
19th "	-	-	-	-	-	-	-	-	-	-
20th and over	-	-	-	-	-	-	-	-	-	-
Not stated	235	319	357	279	206	137	120	200	170	113

TABLE 10. Married mothers by racial origin and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930

Racial Origin and Age of Mother	Mothers	Children Total				Children Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
All races	242,289	949,926	839,836	24,299	974,225	3.92	3.47	0.10	4.02
Under 20	13,047	16,323	16,086	541	16,864	1.25	1.20	0.04	1.29
20-24	60,840	117,197	109,149	3,248	120,445	1.93	1.79	0.05	1.98
25-29	66,041	207,450	187,578	5,087	212,537	3.14	2.84	0.08	3.22
30-34	50,918	240,734	212,499	6,106	246,839	4.73	4.17	0.12	4.85
35-39	38,518	232,976	209,553	5,896	238,872	6.05	5.44	0.15	6.20
40-44	14,249	120,261	101,303	3,000	123,261	8.44	7.11	0.21	8.65
45 and over	1,600	14,454	11,976	392	14,846	9.03	7.48	0.24	9.28
Age not stated	174	551	492	30	581	3.17	2.83	0.17	3.34
British	100,820	311,245	288,451	10,922	322,177	3.08	2.86	0.11	3.19
Under 20	6,073	7,385	7,169	263	7,648	1.22	1.18	0.04	1.26
20-24	25,657	44,733	42,404	1,485	46,218	1.75	1.66	0.06	1.81
25-29	27,136	70,436	66,118	2,310	72,746	2.60	2.44	0.09	2.68
30-34	21,754	79,256	73,306	2,830	82,086	3.64	3.37	0.13	3.77
35-39	14,383	70,736	64,556	2,617	73,353	4.92	4.49	0.18	5.10
40-44	5,493	35,051	31,666	1,291	36,342	6.38	5.76	0.24	6.62
45 and over	481	3,518	3,118	122	3,640	7.31	6.48	0.25	7.57
Age not stated	43	130	114	14	144	3.02	2.66	0.33	3.35
English	55,544	169,136	156,989	5,904	175,040	3.05	2.83	0.11	3.15
Under 20	3,745	4,589	4,442	179	4,768	1.22	1.19	0.05	1.27
20-24	14,884	26,318	25,014	889	27,207	1.77	1.68	0.06	1.83
25-29	14,955	39,687	37,399	1,274	40,961	2.65	2.49	0.09	2.74
30-34	11,457	42,528	39,393	1,603	44,031	3.71	3.44	0.13	3.84
35-39	7,306	36,343	33,216	1,356	37,699	4.91	4.49	0.18	5.10
40-44	2,802	17,659	15,882	626	18,285	6.30	5.67	0.22	6.53
45 and over	269	1,932	1,708	69	2,001	7.18	6.35	0.29	7.44
Age not stated	26	85	74	8	91	3.19	2.85	0.31	3.50
Irish	21,417	69,060	63,585	2,453	71,513	3.27	3.01	0.10	3.39
Under 20	1,124	1,342	1,316	32	1,374	1.19	1.17	0.03	1.22
20-24	4,917	8,624	8,147	279	8,903	1.75	1.66	0.06	1.81
25-29	5,821	14,493	13,548	479	14,972	2.53	2.45	0.09	2.71
30-34	4,847	18,109	16,626	676	18,785	3.74	3.43	0.14	3.88
35-39	3,304	16,991	15,417	612	17,603	5.14	4.67	0.19	5.33
40-44	1,301	8,730	7,840	342	9,072	6.71	6.08	0.28	6.97
45 and over	93	738	663	29	767	7.94	7.13	0.31	8.25
Age not stated	10	33	28	4	37	3.30	2.80	0.40	3.70

TABLE 10. Married mothers by racial origin and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

Racial Origin and Age of Mother	Mothers	Children							
		Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Scottish..............	23,627	70,565	65,587	2,493	73,058	3·01	2·80	0·11	3·12
Under 20............	1,161	1,405	1,362	51	1,456	1·21	1·17	0·04	1·25
20-24................	5,557	9,436	9,009	306	9,742	1·70	1·62	0·06	1·75
25-29................	6,425	15,739	14,820	543	16,282	2·45	2·31	0·08	2·53
30-34................	5,255	17,923	16,636	637	18,560	3·41	3·17	0·12	3·53
35-39................	3,560	16,426	15,405	627	17,453	4·73	4·33	0·18	4·90
40-44................	1,348	8,400	7,501	314	8,714	6·23	5·64	0·23	6·46
45 and over.........	115	823	723	24	847	7·16	6·29	0·21	7·37
Age not stated......	6	13	11	1	14	2·17	1·83	0·17	2·33
French..............	93,074	466,777	397,512	8,845	475,622	4·97	4·23	0·09	5·06
Under 20............	3,910	5,200	4,898	160	5,360	1·83	1·25	0·04	1·37
20-24................	21,867	47,373	43,158	1,064	48,437	2·17	1·98	0·05	2·21
25-29................	25,705	96,667	85,053	1,721	98,418	3·75	3·31	0·07	3·83
30-34................	20,307	130,684	108,497	2,224	122,908	5·94	5·07	0·11	6·05
35-39................	15,028	122,918	101,765	2,289	125,207	8·18	6·77	0·15	8·33
40-44................	6,416	65,586	53,137	1,159	67,075	10·27	8·28	0·19	10·45
45 and over.........	713	7,964	5,353	176	8,140	11·17	8·91	0·25	11·42
Age not stated......	22	58	81	2	87	3·86	3·68	0·09	3·95
Belgian..............	646	2,041	1,861	54	2,095	3·16	2·88	0·08	3·24
Under 20............	33	36	35	1	37	1·09	1·06	0·03	1·12
20-24................	150	258	245	6	264	1·72	1·63	0·04	1·76
25-29................	213	569	529	11	580	2·67	2·48	0·05	2·72
30-34................	129	479	425	15	494	3·71	3·29	0·12	3·83
35-39................	85	457	404	10	467	5·38	4·75	0·12	5·49
40-44................	33	211	195	7	218	6·39	5·91	0·21	6·61
45 and over.........	2	30	27	2	32	15·00	13·50	1·00	16·00
Age not stated......	1	1	1	2	2	1·00	1·00	2·00	3·00
Central and Eastern European..........	29,590	109,331	98,091	2,867	112,198	3·71	3·33	0·10	3·80
Under 20............	1,920	2,333	2,252	72	2,405	1·22	1·17	0·04	1·25
20-24................	8,656	16,098	15,049	474	16,572	1·83	1·74	0·05	1·91
25-29................	9,350	26,198	25,793	632	26,830	3·14	2·85	0·08	3·21
30-34................	5,250	25,120	22,212	674	25,794	4·78	4·23	0·13	4·91
35-39................	3,672	25,159	22,253	605	25,736	6·54	6·06	0·17	7·01
40-44................	1,435	12,507	10,844	348	12,855	8·72	7·56	0·24	8·96
45 and over.........	152	1,844	1,588	55	1,899	10·13	8·75	0·30	10·45
Age not stated......	36	101	95	5	107	2·80	2·70	0·17	3·06
Austrian..............	1,280	5,504	4,809	168	5,672	4·30	3·83	0·13	4·43
Under 20............	65	85	81	2	87	1·31	1·25	0·03	1·34
20-24................	350	723	662	30	753	2·01	1·84	0·08	2·09
25-29................	300	1,341	1,151	30	1,371	3·75	3·28	0·09	3·81
30-34................	221	1,216	1,072	41	1,257	5·50	4·85	0·19	5·69
35-39................	198	1,449	1,293	34	1,460	7·49	6·70	0·18	7·67
40-44................	72	534	555	29	563	8·41	7·71	0·40	9·21
45 and over.........	7	55	51	2	57	7·85	7·29	0·29	8·14
Age not stated......	2	4	4		4	2·00	2·00	–	2·00
Bulgarian..............	27	42	37	3	45	1·56	1·37	0·11	1·67
Under 20............	1	1	1		1	1·00	1·00	–	1·00
20-24................	14	17	20	2	24	1·07	1·43	0·14	1·71
25-29................	7	8	7			1·14	1·00	–	1·14
30-34................	5	11		1	12	2·20	1·80	0·20	2·40
35-39................	–	–	–	–	–	–	–	–	–
40-44................	–	–	–	–	–	–	–	–	–
45 and over.........	–	–	–	–	–	–	–	–	–
Age not stated......	–	–	–	–	–	–	–	–	–
Czech and Slovak......	778	2,181	1,977	54	2,235	2·80	2·54	0·07	2·87
Under 20............	36	40	39	1	41	1·11	1·08	0·03	1·14
20-24................	222	367	342	13	380	1·55	1·54	0·03	1·71
25-29................	281	732	651	19	748	2·60	2·32	0·06	2·66
30-34................	149	530	471	12	542	3·55	3·15	0·08	3·64
35-39................	59	388	329	8	356	5·19	4·77	0·13	5·30
40-44................	19	138	127	4	142	7·26	6·68	0·21	7·47
45 and over.........	2	16	15		16	8·00	7·50	–	8·00
Age not stated......	–	–	–	–	–	–	–	–	–

TABLE 10. Married mothers by racial origin and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

Racial Origin and Age of Mother	Mothers	Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Finnish	874	1,942	1,779	85	2,027	2.22	2.04	0.10	2.32
Under 20	68	78	76	2	80	1.15	1.12	0.03	1.18
20-24	291	429	410	13	442	1.47	1.41	0.04	1.52
25-29	269	523	488	19	542	1.94	1.80	0.07	2.01
30-34	142	339	298	20	359	2.39	2.10	0.14	2.53
35-39	67	360	313	20	380	5.37	4.67	0.30	5.67
40-44	32	187	173	11	198	5.84	5.41	0.34	6.19
45 and over	3	15	13	–	15	5.00	4.33	–	5.00
Age not stated	2	11	11	–	11	5.50	5.50	–	5.50
German	11,969	45,263	41,207	1,147	46,430	3.78	3.44	0.10	3.88
Under 20	670	808	788	30	838	1.21	1.18	0.04	1.25
20-24	3,309	6,151	5,826	175	6,326	1.86	1.76	0.05	1.91
25-29	3,299	10,182	9,420	244	10,426	3.10	2.85	0.07	3.17
30-34	2,315	10,757	9,722	290	11,047	4.65	4.20	0.13	4.77
35-39	1,668	10,242	9,216	227	10,469	6.14	5.53	0.14	6.28
40-44	729	6,251	5,453	156	6,407	8.57	7.48	0.21	8.79
45 and over	82	851	762	23	874	10.37	9.29	0.29	10.65
Age not stated	7	22	20	2	24	3.14	2.86	0.29	3.43
Greek	189	569	507	28	597	3.01	2.68	0.15	3.16
Under 20	5	5	5	–	5	1.00	1.00	–	1.00
20-24	40	66	61	5	71	1.65	1.53	0.13	1.78
25-29	77	189	176	8	195	2.45	2.29	0.08	2.53
30-34	27	91	81	7	99	3.41	3.00	0.26	3.67
35-39	27	131	110	10	141	4.88	4.07	0.37	5.22
40-44	10	72	62	–	72	7.20	6.20	–	7.20
45 and over	3	14	12	–	14	4.67	4.00	–	4.67
Age not stated	–	1	1	–	1	1.00	1.00	–	1.00
Hungarian	1,333	4,437	3,824	115	4,552	3.33	2.89	0.09	3.44
Under 20	73	87	85	6	92	1.19	1.16	0.07	1.26
20-24	372	655	611	13	673	1.76	1.64	0.03	1.80
25-29	428	1,305	1,136	34	1,339	3.05	2.65	0.08	3.13
30-34	270	1,207	990	35	1,242	4.47	3.60	0.13	4.52
35-39	133	819	684	17	836	6.16	5.15	0.13	6.33
40-44	38	340	296	6	346	8.95	7.79	0.16	9.11
45 and over	3	23	21	–	23	7.67	7.00	–	7.67
Age not stated	1	1	1	–	1	1.00	1.00	–	1.00
Polish	3,517	12,041	10,787	313	12,354	3.42	3.07	0.09	3.51
Under 20	228	265	257	12	277	1.16	1.13	0.05	1.21
20-24	1,090	1,914	1,772	56	1,970	1.76	1.63	0.05	1.81
25-29	1,077	3,152	2,879	76	3,228	2.93	2.67	0.07	3.00
30-34	654	2,414	2,110	61	2,475	3.69	3.23	0.09	3.78
35-39	429	2,920	2,560	60	2,980	6.81	5.96	0.14	6.95
40-44	134	1,161	1,020	35	1,196	8.66	7.61	0.26	8.93
45 and over	17	176	151	13	188	10.35	8.88	0.76	11.06
Age not stated	8	34	32	–	34	4.25	4.00	–	4.25
Roumanian	601	2,626	2,254	85	2,711	4.37	3.75	0.14	4.51
Under 20	54	64	62	2	66	1.19	1.15	0.04	1.22
20-24	163	380	349	19	399	2.33	2.14	0.12	2.45
25-29	168	614	534	14	628	3.65	3.18	0.08	3.74
30-34	114	665	560	33	693	5.83	4.91	0.29	6.12
35-39	71	603	516	7	610	8.49	7.27	0.10	8.69
40-44	30	294	223	10	304	9.80	7.60	0.33	10.13
45 and over	1	6	5	–	6	6.00	5.00	–	6.00
Russian	2,005	8,086	7,263	204	8,290	4.03	3.62	0.10	4.13
Under 20	115	149	143	2	151	1.30	1.24	0.02	1.31
20-24	536	1,049	999	20	1,069	1.96	1.86	0.04	1.99
25-29	530	1,664	1,514	53	1,707	3.14	2.87	0.10	3.23
30-34	392	1,868	1,772	43	1,911	4.77	4.52	0.11	4.88
35-39	305	2,111	1,851	54	2,165	6.92	6.07	0.18	7.10
40-44	104	904	781	22	926	8.69	7.51	0.21	8.90
45 and over	22	240	194	8	248	10.91	8.82	0.36	11.27
Age not stated	3	11	9	2	13	3.67	3.00	0.67	4.33

TABLE 10. Married mothers by racial origin and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

| Racial Origin and Age of Mother | Mothers | Children | | | | | | | |
| | | Total | | | | Average | | | |
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Serb and Croat......	531	1,553	1,332	53	1,606	2·92	2·50	0·10	3·02
Under 20......	30	36	35	...	36	1·20	1·17	...	1·20
20-24......	147	237	221	10	247	1·61	1·50	0·07	1·68
25-29......	187	510	435	16	526	2·73	2·43	0·09	2·81
30-34......	99	385	332	12	397	3·89	3·35	0·12	4·01
35-39......	54	296	281	6	302	5·48	4·83	0·11	5·59
40-44......	12	87	76	8	95	7·25	6·33	0·67	7·92
45 and over......	2	...	...	...	...	...	...	...	...
Age not stated......	2	2	2	...	3	1·00	1·00	...	1·50
Ukrainian......	6,466	25,057	22,175	512	25,699	3·92	3·46	0·10	4·01
Under 20......	575	715	680	16	731	1·24	1·18	0·03	1·27
20-24......	2,111	4,105	3,776	113	4,218	1·94	1·79	0·05	2·00
25-29......	1,679	5,988	5,355	124	6,112	3·67	3·19	0·07	3·64
30-34......	977	5,580	4,792	119	5,555	5·67	4·90	0·12	5·79
35-39......	757	5,538	5,114	163	6,001	7·71	6·76	0·22	7·93
40-44......	255	2,439	2,073	67	2,505	9·56	8·13	0·26	9·83
45 and over......	42	450	320	9	459	10·71	8·76	0·21	10·93
Age not stated......	10	16	16	1	17	1·60	1·60	0·10	1·70
Chinese......	242	1,110	1,057	12	1,122	4·59	4·37	0·05	4·64
Under 20......	17	21	21	...	21	1·24	1·24	...	1·24
20-24......	56	127	121	...	128	2·27	2·16	0·02	2·29
25-29......	42	175	169	2	177	4·17	4·02	0·05	4·21
30-34......	59	329	313	4	333	5·58	5·31	0·07	5·64
35-39......	45	307	293	2	309	6·67	6·37	0·04	6·72
40-44......	15	92	86	3	95	6·13	5·73	0·20	6·33
45 and over......	7	59	54	...	59	8·43	7·71	...	8·43
Dutch......	2,299	8,782	7,987	206	8,988	3·82	3·47	0·09	3·91
Under 20......	125	152	150	3	155	1·22	1·20	0·02	1·24
20-24......	592	1,167	1,113	21	1,188	1·97	1·88	0·04	2·01
25-29......	640	1,983	1,849	46	2,029	3·10	2·89	0·07	3·17
30-34......	478	2,267	2,026	49	2,316	4·76	4·24	0·10	4·87
35-39......	330	2,097	1,855	54	2,151	6·35	5·62	0·16	6·52
40-44......	119	957	845	33	990	8·04	7·11	0·28	8·32
45 and over......	14	148	125	...	148	10·57	9·00	...	10·57
Age not stated......	3	11	10	...	11	3·67	3·33	...	3·67
Hebrew......	2,220	5,185	4,944	168	5,353	2·34	2·23	0·08	2·41
Under 20......	42	40	40	2	42	0·95	0·95	0·05	1·00
20-24......	656	820	812	31	851	1·25	1·23	0·05	1·31
25-29......	732	1,403	1,351	55	1,458	1·92	1·86	0·08	1·99
30-34......	475	1,430	1,373	37	1,462	3·01	2·89	0·07	3·08
35-39......	257	1,163	1,075	37	1,200	4·53	4·19	0·14	4·67
40-44......	49	297	281	8	305	6·06	5·33	0·16	6·22
45 and over......	3	21	20	1	22	7·00	6·67	0·33	7·33
Age not stated......	3	1	1	2	3	0·33	0·33	0·67	1·00
Indian......	2,572	12,717	9,948	239	12,956	4·43	3·46	0·08	4·51
Under 20......	322	421	401	23	444	1·31	1·25	0·07	1·38
20-24......	773	1,928	1,676	...	1,909	2·49	2·17	0·05	2·55
25-29......	561	2,354	2,308	42	2,376	4·29	3·49	0·06	4·35
30-34......	523	3,129	2,424	54	3,183	5·98	4·63	0·30	6·09
35-39......	359	2,576	1,834	44	2,629	7·18	5·11	0·12	7·30
40-44......	152	1,350	955	27	1,377	8·88	6·28	0·18	9·06
45 and over......	38	325	223	7	332	8·55	5·87	0·18	8·74
Age not stated......	44	154	129	1	155	3·50	2·93	0·02	3·52
Italian......	2,439	9,049	8,020	280	9,335	3·71	3·29	0·12	3·83
Under 20......	198	246	244	6	252	1·24	1·23	0·03	1·27
20-24......	646	1,301	1,218	42	1,343	2·01	1·89	0·07	2·08
25-29......	587	1,861	1,577	61	1,922	3·17	2·68	0·10	3·27
30-34......	510	2,297	2,043	53	2,350	4·50	4·01	0·10	4·61
35-39......	351	2,142	1,849	83	2,225	6·10	5·27	0·24	6·34
40-44......	124	1,028	843	29	1,057	8·29	6·80	0·23	8·52
45 and over......	15	150	125	11	161	10·00	8·33	0·73	10·73
Age not stated......	8	24	21	1	26	3·00	2·63	0·13	3·13

TABLE 10. Married mothers by racial origin and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

Racial Origin and Age of Mother	Mothers	Children							
		Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Japanese	864	3,084	2,833	60	3,144	3·57	3·35	0·07	3·64
Under 20	24	31	30	–	31	1·29	1·25	–	1·29
20-24	209	384	357	6	390	1·92	1·84	0·03	1·95
25-29	253	743	714	18	761	2·94	2·82	0·07	3·01
30-34	200	859	800	18	877	4·30	4·00	0·09	4·39
35-39	140	795	733	16	811	5·68	5·24	0·11	5·79
40-44	40	228	208	3	231	5·70	5·20	0·08	5·78
45 and over	6	41	39	–	41	6·83	6·50	–	6·83
Age not stated	1	2	2	–	2	2·00	2·00	–	2·00
Negro	360	1,546	1,348	72	1,618	4·29	3·74	0·20	4·49
Under 20	29	40	38	2	42	1·38	1·31	0·07	1·45
20-24	88	200	183	13	213	2·27	2·08	0·15	2·42
25-29	100	393	334	15	408	3·93	3·34	0·15	4·08
30-34	76	414	356	20	434	5·45	4·68	0·26	5·71
35-39	44	296	247	11	307	6·73	5·61	0·25	6·98
40-44	20	167	137	8	175	8·35	6·85	0·40	8·75
45 and over	3	36	21	3	39	12·00	7·00	1·00	13·00
Age not stated	–	–	–	–	–	–	–	–	–
Scandinavian	4,531	14,544	13,605	407	14,951	3·21	3·00	0·09	3·30
Under 20	251	299	292	5	304	1·19	1·16	0·02	1·21
20-24	1,203	2,067	1,976	53	2,120	1·72	1·64	0·04	1·76
25-29	1,253	3,233	3,053	99	3,332	2·58	2·44	0·08	2·66
30-34	986	3,345	3,135	100	3,445	3·39	3·18	0·10	3·49
35-39	643	3,358	3,102	86	3,444	5·22	4·82	0·13	5·36
40-44	282	1,959	1,799	61	2,020	6·95	6·38	0·22	7·16
45 and over	33	270	251	13	283	8·18	7·61	0·39	8·58
Age not stated	–	–	–	–	–	–	–	–	–
Danish	689	1,906	1,775	68	1,974	2·77	2·58	0·10	2·87
Under 20	42	50	49	1	51	1·19	1·17	0·02	1·21
20-24	192	292	285	8	300	1·52	1·48	0·04	1·56
25-29	210	495	461	24	519	2·36	2·20	0·11	2·47
30-34	144	485	453	22	507	3·37	3·15	0·15	3·52
35-39	72	368	340	7	375	5·11	4·72	0·10	5·21
40-44	29	215	185	7	222	7·41	6·38	0·24	7·66
45 and over	–	–	–	–	–	–	–	–	–
Age not stated	–	–	–	–	–	–	–	–	–
Icelandic	388	1,356	1,272	43	1,399	3·49	3·28	0·11	3·61
Under 20	11	13	13	–	13	1·18	1·18	–	1·18
20-24	79	128	120	5	133	1·62	1·52	0·06	1·68
25-29	116	298	285	8	306	2·57	2·46	0·07	2·64
30-34	85	346	327	8	354	4·07	3·85	0·09	4·16
35-39	61	337	313	8	345	5·52	5·13	0·13	5·66
40-44	33	225	204	8	233	6·82	6·18	0·24	7·06
45 and over	3	9	9	4	13	3·00	3·00	1·33	4·33
Age not stated	–	–	–	–	–	–	–	–	–
Norwegian	1,977	6,552	6,140	179	6,731	3·31	3·11	0·09	3·40
Under 20	113	134	129	4	138	1·19	1·14	0·04	1·22
20-24	518	873	844	16	889	1·69	1·63	0·03	1·72
25-29	518	1,395	1,317	44	1,439	2·69	2·54	0·08	2·78
30-34	374	1,491	1,387	44	1,535	3·99	3·71	0·12	4·10
35-39	299	1,544	1,430	39	1,583	5·16	4·78	0·13	5·29
40-44	138	968	900	26	994	7·01	6·52	0·19	7·20
45 and over	18	147	137	6	153	8·17	7·61	0·33	8·50
Age not stated	–	–	–	–	–	–	–	–	–
Swedish	1,477	4,730	4,418	117	4,847	3·20	2·99	0·08	3·28
Under 20	85	102	101	–	102	1·20	1·19	–	1·20
20-24	414	774	727	22	796	1·87	1·76	0·05	1·92
25-29	400	1,043	989	25	1,068	2·61	2·47	0·06	2·67
30-34	263	1,026	966	27	1,053	3·90	3·67	0·10	4·00
35-39	212	1,109	1,023	32	1,141	5·23	4·83	0·15	5·38
40-44	52	560	507	11	571	10·77	9·75	0·21	10·98
45 and over	12	117	105	3	120	9·75	8·75	0·25	10·00
Age not stated	–	–	–	–	–	–	–	–	–

TABLE 11. Specific fertility rates of married women 15-49 years of age, by racial origin, Canada, 1930-1932

Item	Total	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50 and over	Not Stated
British—											
Births, 1930............	97,512	7	5,898	24,895	26,339	20,971	13,744	5,176	428	13	41
Births, 1931............	93,562	7	5,809	24,222	25,292	19,917	13,114	4,743	429	5	24
Births, 1932............	90,397	2	5,717	23,478	24,706	18,792	12,612	4,635	429	2	27
Total...............	281,471	16	17,424	72,592	76,337	59,680	39,470	14,554	1,286	20	92
Average.............	93,824	5	5,808	24,197	25,446	19,893	13,157	4,851	429	7	31
Married women, 15-49, 1931..	788,291	—	11,478	75,919	123,464	144,006	155,200	147,039	131,156	—	—
Specific fertility rate..	119·02	—	506·01	318·72	206·10	138·14	84·77	32·99	3·27	—	—
French—											
Births, 1930............	91,493	4	3,808	21,367	25,125	19,800	14,544	6,147	655	13	30
Births, 1931............	92,072	3	3,694	20,910	25,923	20,194	14,573	6,067	670	11	24
Births, 1932............	90,938	9	3,411	20,068	25,912	20,128	14,458	6,188	692	11	22
Total...............	274,455	12	10,913	62,345	76,960	60,122	43,673	18,399	2,023	35	76
Average.............	91,486	4	3,638	20,782	25,653	20,041	14,524	6,133	674	12	25
Married women, 15-49, 1931..	360,814	—	6,774	44,894	70,971	69,263	64,989	56,251	48,581	—	—
Specific fertility rate..	253·55	—	537·05	462·91	366·10	289·35	223·51	109·03	13·87	—	—
Austrian, n.o.s.—											
Births, 1930............	1,222	1	62	343	350	213	179	67	5	—	2
Births, 1931............	1,021	—	54	274	340	198	138	46	7	—	1
Births, 1932............	855	—	45	220	247	154	119	64	6	—	—
Total...............	3,098	1	161	837	900	565	436	177	18	—	3
Average.............	1,033	—	54	279	300	188	145	59	6	—	1
Married women, 15-49, 1931..	7,385	—	220	1,260	1,564	1,382	1,297	930	732	—	—
Specific fertility rate..	139·88	—	245·46	221·43	191·82	136·03	111·80	63·44	8·20	—	—
Belgian—											
Births, 1930............	631	—	32	147	209	127	88	31	2	—	—
Births, 1931............	578	—	32	134	173	125	77	32	5	—	—
Births, 1932............	588	—	37	145	154	146	75	27	4	—	—
Total...............	1,797	—	101	426	536	398	235	90	11	—	—
Average.............	599	—	34	142	179	133	78	30	4	—	—
Married women, 15-49, 1931..	4,841	—	71	481	913	1,121	868	790	597	—	—
Specific fertility rate..	123·73	—	478·87	295·22	196·06	118·64	89·86	37·97	6·70	—	—
Chinese and Japanese—											
Births, 1930............	1,085	—	41	252	289	256	180	53	13	—	1
Births, 1931............	1,065	—	26	262	276	260	172	57	2	—	—
Births, 1932............	928	—	24	198	248	208	179	52	7	2	—
Total...............	3,078	—	101	712	813	724	531	172	22	2	1
Average.............	1,026	—	34	237	271	241	177	57	7	1	—
Married women, 15-49, 1931..	4,734	—	65	601	825	1,138	993	661	451	—	—
Specific fertility rate..	216·73	—	523·08	394·34	328·48	211·78	178·25	86·23	15·52	—	—
Czech and Slovak—											
Births, 1930............	758	—	35	174	245	146	67	18	2	—	1
Births, 1931............	825	—	37	222	295	179	83	13	3	—	2
Births, 1932............	820	—	40	197	298	179	86	16	4	—	—
Total...............	2,403	—	112	631	870	504	236	47	9	—	3
Average.............	801	—	37	210	290	165	79	16	3	—	1
Married women, 15-49, 1931..	4,239	—	101	677	1,134	1,019	565	419	324	—	—
Specific fertility rate..	188·96	—	366·34	310·19	255·73	161·92	139·82	38·19	9·26	—	—

TABLE 11. Specific fertility rates of married women 15-49 years of age, by racial origin, Canada, 1930-1932—Con.

Item	Total	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50 and over	Not Stated
Dutch—											
Births, 1930	2,246	1	121	582	630	463	319	113	13	1	3
Births, 1931	2,453	.	140	615	718	493	329	148	10	.	.
Births, 1932	2,295	.	123	577	639	449	338	151	17	1	.
Total	6,994	1	384	1,774	1,987	1,405	986	412	40	2	3
Average	2,331	.	128	591	662	468	329	137	13	1	1
Married women, 15-49, 1931	20,061	..	377	2,314	3,459	3,754	3,723	3,358	3,076	..	..
Specific fertility rate	116·20	..	339·52	255·40	191·38	124·67	88·37	40·80	4·23	..	..
Finnish—											
Births, 1930	847	.	67	287	259	135	64	30	3	.	2
Births, 1931	866	.	70	300	263	134	67	27	3	.	2
Births, 1932	768	.	52	235	241	145	66	25	4	.	..
Total	2,481	.	189	822	763	414	197	82	10	.	4
Average	827	.	63	274	254	138	66	27	3	.	1
Married women, 15-49, 1931	7,596	..	151	1,074	1,736	1,537	1,239	1,007	852	..	..
Specific fertility rate	108·87	..	417·22	255·12	146·31	89·79	53·27	26·81	3·52	..	..
German—											
Births, 1930	11,682	.	654	3,244	3,230	2,264	1,517	691	76	.	6
Births, 1931	11,794	.	706	3,339	3,353	2,190	1,529	603	66	.	8
Births, 1932	12,068	.	685	3,319	3,435	2,288	1,582	653	71	.	2
Total	35,541	.	2,045	9,903	10,018	6,742	4,628	1,977	213	.	16
Average	11,847	.	683	3,301	3,339	2,247	1,543	659	71	.	5
Married women, 15-49, 1931	68,443	..	1,390	9,101	12,701	13,088	12,220	10,728	9,215	..	..
Specific fertility rate	173·09	..	490·65	362·71	262·89	171·68	126·27	61·43	7·70	..	..
Hebrew—											
Births, 1930	2,167	.	40	648	710	468	249	47	2	.	.
Births, 1931	2,121	.	35	581	796	432	215	56	4	.	2
Births, 1932	2,135	.	44	632	797	431	180	42	3	.	..
Total	6,423	.	119	1,861	2,303	1,331	650	145	9	.	5
Average	2,141	.	40	620	768	444	217	48	3	.	2
Married women, 15-49, 1931	25,947	..	160	2,706	5,075	4,683	5,094	4,463	3,767	..	..
Specific fertility rate	82·51	..	250·00	229·12	151·33	94·81	42·60	10·76	0·80	..	..
Hungarian—											
Births, 1930	1,294	.	70	365	423	267	127	38	3	.	1
Births, 1931	1,265	.	92	360	404	252	110	31	6	.	4
Births, 1932	1,254	.	83	317	407	270	130	39	6	.	2
Total	3,813	.	245	1,042	1,234	789	373	108	15	.	7
Average	1,271	.	82	347	411	263	124	36	5	.	2
Married women, 15-49, 1931	6,602	..	179	1,070	1,625	1,689	983	640	416	..	..
Specific fertility rate	192·52	..	458·10	324·30	252·77	155·71	126·27	56·25	12·02	..	..
Indian—											
Births, 1930	2,833	1	311	757	656	516	357	148	34	2	51
Births, 1931	2,948	2	329	823	694	560	374	173	29	2	19
Births, 1932	3,346	1	404	900	770	607	430	155	38	2	33
Total	9,127	4	1,044	2,480	2,120	1,620	1,161	476	101	6	103
Average	3,042	1	348	827	709	542	387	159	34	2	34
Married women, 15-49, 1931	16,521	..	1,072	2,977	3,052	3,119	2,480	2,045	1,776	..	..
Specific fertility rate	184·13	..	324·63	277·80	232·31	173·77	156·05	77·75	19·14	..	..

TABLE 11. Specific fertility rates of married women 15-49 years of age, by racial origin, Canada, 1930-1932—Con.

Item	Total	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50 and over	Not Stated
Italian—											
Births, 1930	2,358	1	103	622	570	499	331	120	15	–	7
Births, 1931	2,250	–	167	608	543	475	319	129	15	–	1
Births, 1932	2,039	–	155	585	480	365	318	121	14	–	1
Total	6,647	1	515	1,815	1,593	1,339	968	363	44	–	9
Average	2,216	–	172	605	531	446	323	121	15	–	3
Married mothers, 15-49, 1931	13,342	–	307	1,857	2,231	2,719	2,449	2,064	1,625	–	–
Specific fertility rate	166·09	–	433·25	325·79	238·01	164·03	131·89	58·62	9·23	–	–
Polish—											
Births, 1930	3,425	–	220	1,066	1,044	514	419	126	16	–	20
Births, 1931	3,683	–	245	1,124	1,161	615	373	127	21	–	16
Births, 1932	3,624	–	233	1,031	1,120	687	389	132	22	1	6
Total	10,732	–	698	3,221	3,325	1,816	1,181	385	59	2	42
Average	3,577	–	233	1,074	1,109	605	394	128	20	1	14
Married mothers, 15-49, 1931	22,394	–	695	4,116	5,036	4,143	3,738	2,760	1,906	–	–
Specific fertility rate	159·73	–	335·25	260·93	220·21	146·03	105·40	46·38	10·49	–	–
Roumanian—											
Births, 1930	383	–	53	155	165	110	69	28	1	–	1
Births, 1931	540	–	46	172	143	85	65	27	2	–	–
Births, 1932	525	–	52	133	136	105	74	24	2	–	–
Total	1,648	–	151	460	441	300	211	79	5	–	1
Average	549	–	50	153	147	100	70	26	2	–	–
Married mothers, 15-49, 1931	4,118	–	183	693	763	794	778	536	381	–	–
Specific fertility rate	133·32	–	273·22	220·78	195·22	125·94	89·97	48·51	5·25	–	–
Russian—											
Births, 1930	1,961	–	115	529	516	383	299	100	20	–	2
Births, 1931	1,684	–	94	463	447	328	250	88	13	–	1
Births, 1932	1,519	–	104	405	408	299	215	89	9	–	–
Total	5,164	–	313	1,393	1,371	1,000	764	277	42	–	4
Average	1,721	–	104	464	457	333	235	92	14	–	1
Married women, 15-49, 1931	12,682	–	433	2,247	2,612	2,101	2,117	1,716	1,456	–	–
Specific fertility rate	135·70	–	240·18	206·50	174·96	158·50	120·45	53·61	9·62	–	–
Scandinavian—											
Births, 1930	4,407	–	248	1,178	1,220	840	625	265	31	–	–
Births, 1931	4,328	–	227	1,172	1,242	831	621	209	25	–	1
Births, 1932	4,251	–	241	1,144	1,210	840	544	249	23	–	–
Total	12,986	–	716	3,494	3,672	2,511	1,790	723	79	–	1
Average	4,329	–	239	1,165	1,224	837	597	241	26	–	–
Married women, 15-49, 1931	31,000	–	504	3,693	5,583	5,809	5,816	5,225	4,314	–	–
Specific fertility rate	139·63	–	474·21	315·40	219·28	142·61	102·65	46·12	6·03	–	–
Ukrainian—											
Births, 1930	6,272	–	566	2,077	1,656	953	737	238	35	1	9
Births, 1931	6,620	1	577	2,117	1,797	1,074	733	272	42	1	1
Births, 1932	6,678	–	547	2,184	1,821	1,052	748	269	54	1	3
Total	19,570	1	1,690	6,378	5,274	3,079	2,223	779	131	2	13
Average	6,523	–	563	2,126	1,758	1,026	741	260	44	1	4
Married women, 15-49, 1931	33,036	–	1,372	6,079	6,824	6,694	5,759	4,269	3,039	–	–
Specific fertility rate	197·45	–	410·35	349·73	257·62	180·19	128·67	60·90	14·48	–	–

TABLE 12. Specific fertility rates¹ of women 15-49 years of age (all conjugal conditions), by racial origin, Prairie Provinces, 1926, 1931 and 1936

Racial Origin of Mother	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1926							
All races	32·6	161·9	189·8	156·2	109·5	51·1	7·2
British	23·6	123·6	163·3	134·2	89·9	37·0	4·5
English	25·1	129·3	163·1	134·7	91·4	37·7	5·4
Irish	21·0	113·2	161·7	134·9	83·0	32·2	3·7
Scottish	22·9	122·3	164·6	133·1	91·9	39·1	3·6
French	42·0	190·4	229·2	188·8	142·2	74·7	8·1
Belgian	38·9	217·3	195·0	143·2	137·5	50·6	16·3
Central and Eastern European	46·1	237·0	249·8	206·9	158·9	87·2	14·7
Austrian	54·3	228·1	219·6	215·1	153·9	80·0	14·6
Bulgarian	–	416·7	–	–	142·9	–	–
Czech and Slovak	43·8	186·4	223·2	244·6	87·2	47·6	6·4
Finnish	37·0	179·0	207·8	201·0	101·8	70·6	14·6
German	41·4	270·2	306·8	245·7	193·9	112·3	14·5
Greek	71·4	137·9	179·5	160·0	100·0	–	200·0
Hungarian	42·7	226·5	194·9	166·7	130·3	56·5	4·7
Polish	42·6	190·2	205·7	191·8	128·9	59·6	14·9
Roumanian	63·2	318·7	276·8	168·1	185·5	115·4	14·5
Russian	23·7	132·5	175·3	182·0	133·3	70·7	9·9
Serb and Croat	–	307·7	348·8	312·5	216·2	107·1	52·6
Ukrainian	60·8	277·9	350·2	193·1	148·8	78·0	18·1
Chinese	136·4	312·5	583·3	450·0	419·4	263·2	153·8
Dutch	10·8	99·8	142·5	151·0	86·5	53·9	2·1
Hebrew	2·6	98·6	188·3	150·5	52·9	17·3	–
Indian	81·1	213·1	186·0	170·5	127·9	84·5	19·4
Italian	25·8	160·3	177·3	189·8	131·6	88·2	–
Japanese	125·0	300·0	461·5	370·4	–	90·9	–
Negro	71·4	136·4	107·1	96·2	65·6	60·0	–
Scandinavian	27·6	153·2	177·8	150·1	120·3	63·3	9·5
Danish	21·1	153·8	188·6	149·0	93·0	30·8	8·5
Icelandic	19·7	166·8	113·7	163·7	120·3	60·0	16·6
Norwegian	30·1	175·8	196·0	150·8	136·1	73·7	7·8
Swedish	29·2	148·1	180·1	142·8	106·6	59·3	9·1
1931							
All races	30·5	149·3	179·7	142·0	98·6	41·8	5·4
British	22·7	116·4	145·3	115·8	75·1	29·9	3·1
English	24·0	120·6	147·5	116·2	75·1	30·1	3·1
Irish	22·0	112·0	141·8	114·1	73·6	31·4	3·3
Scottish	19·0	113·5	143·8	118·0	76·7	27·9	2·9
French	41·2	189·4	204·3	174·4	134·8	59·5	6·6
Belgian	27·7	152·7	185·6	130·9	112·3	38·4	10·4
Central and Eastern European	37·8	191·6	223·8	185·0	137·1	65·3	10·7
Austrian	33·5	138·0	170·1	170·5	130·5	64·5	12·0
Bulgarian	–	125·0	125·0	–	–	–	–
Czech and Slovak	25·5	165·2	197·0	178·7	131·1	32·4	4·7
Finnish	47·9	128·0	187·0	74·1	95·8	63·7	5·7
German	33·8	209·9	255·7	196·6	136·6	73·1	9·5
Greek	–	100·0	354·8	54·1	64·5	58·8	–
Hungarian	67·0	244·4	238·4	177·7	139·1	51·9	10·3
Polish	33·5	151·3	193·4	157·5	101·4	49·9	10·1
Roumanian	33·2	195·0	180·2	127·1	107·3	57·3	5·1
Russian	20·4	118·1	141·8	148·1	103·1	32·3	10·0
Serb and Croat	61·1	253·8	396·4	324·3	250·0	69·0	26·3
Ukrainian	43·7	225·3	238·7	201·3	134·3	67·2	14·0
Chinese	23·8	235·3	361·1	260·2	173·9	160·0	–
Dutch	19·0	128·7	201·0	152·3	118·9	57·3	3·9
Hebrew	2·8	49·3	111·1	89·3	43·3	30·3	2·6
Indian	114·5	283·4	265·7	211·4	180·9	115·0	23·6
Italian	33·7	137·2	119·3	174·7	79·5	40·0	3·9
Japanese	100·0	312·5	400·0	166·7	153·8	–	–
Negro	11·4	92·3	102·0	98·0	36·4	18·2	–
Scandinavian	27·0	142·2	172·4	139·3	104·3	41·4	6·4
Danish	26·8	145·5	166·5	146·5	94·0	31·0	3·0
Icelandic	15·9	113·2	156·1	128·2	90·6	46·5	5·1
Norwegian	28·2	164·7	188·2	143·6	123·0	43·9	6·1
Swedish	28·8	134·5	164·4	102·9	87·3	39·6	8·2

¹ Rates per 1,000 women of age specified.

TABLE 12. Specific fertility rates[1] of women 15-49 years of age (all conjugal conditions), by racial origin, Prairie Provinces, 1926, 1931 and 1936—Con.

Racial Origin of Mother	Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1936							
All races	24·2	117·4	148·1	126·2	86·1	36·6	4·2
British	17·6	90·9	119·2	99·1	62·4	24·1	2·0
English	17·3	88·1	114·9	95·9	59·5	23·3	1·7
Irish	20·6	101·5	126·0	100·5	66·0	26·9	1·8
Scottish	16·0	87·3	121·4	103·0	65·4	28·2	2·5
French	33·7	147·7	190·2	172·7	119·1	63·2	6·8
Belgian	24·6	171·7	217·1	142·2	125·0	20·2	6·6
Central and Eastern European	27·9	143·1	172·7	149·8	111·8	52·6	8·6
Austrian	14·1	120·5	196·1	145·0	144·6	52·4	13·8
Bulgarian	–	100·0	142·9	100·0	–	–	–
Czech and Slovak	28·0	139·6	150·6	147·5	120·4	41·0	7·8
Finnish	29·6	125·8	139·9	144·5	122·4	41·1	7·6
German	24·2	144·6	180·5	154·3	113·7	57·6	7·7
Greek	–	156·5	172·4	83·3	29·4	40·0	–
Hungarian	41·7	166·7	165·8	153·7	112·1	58·6	13·7
Polish	28·6	118·5	150·0	143·9	93·0	45·2	7·5
Roumanian	31·2	125·7	123·1	157·0	93·8	56·9	12·9
Russian	19·5	121·4	172·0	165·8	134·8	68·0	9·3
Serb and Croat	15·0	219·2	273·8	274·5	120·6	55·6	28·6
Ukrainian	33·3	152·5	174·5	141·9	110·1	45·8	8·9
Chinese	39·2	173·9	381·0	125·0	181·8	–	–
Dutch	17·0	141·2	196·7	176·0	141·8	67·5	8·7
Hebrew	0·8	33·0	94·6	69·1	41·1	7·3	–
Indian	163·9	409·5	386·3	343·5	276·6	143·8	17·8
Italian	11·5	116·9	91·2	71·4	75·1	9·9	–
Japanese	38·5	181·8	421·1	125·0	181·8	153·8	–
Negro	65·2	148·6	101·7	204·5	92·6	42·6	20·4
Scandinavian	23·2	120·5	156·0	126·5	83·8	30·9	4·8
Danish	22·1	130·2	144·1	135·2	95·8	30·9	–
Icelandic	14·7	105·5	149·7	105·2	84·2	37·6	–
Norwegian	25·9	123·1	166·0	133·5	84·1	45·2	6·7
Swedish	22·4	118·7	147·9	122·8	77·0	34·9	5·8

TABLE 13.   Married mothers by birthplace and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930

Birthplace and Age of Mother	Mothers	Children							
		Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
All birthplaces...........	**242,289**	**949,929**	**539,536**	**24,299**	**974,225**	**3·92**	**2·47**	**0·10**	**4·02**
Under 20...........	13,047	16,323	15,686	541	16,864	1·25	1·20	0·04	1·29
20-24...........	60,840	117,197	109,149	3,248	120,445	1·93	1·79	0·05	1·98
25-29...........	66,046	207,459	187,878	5,077	212,537	3·14	2·84	0·08	3·22
30-34...........	50,916	240,734	212,499	6,105	246,839	4·73	4·17	0·12	4·85
35-39...........	35,518	232,976	200,553	5,896	238,872	6·56	5·65	0·17	6·73
40-44...........	14,249	120,251	101,303	3,010	123,261	8·44	7·11	0·21	8·65
45 and over...........	1,500	14,434	11,976	392	14,826	9·62	7·98	0·26	9·88
Age not stated...........	174	561	492	30	581	3·17	2·83	0·17	3·34
Canada...........	**176,061**	**718,423**	**629,037**	**17,271**	**735,694**	**4·08**	**3·57**	**0·10**	**4·18**
Under 20...........	11,041	13,914	13,351	471	14,385	1·26	1·21	0·04	1·30
20-24...........	46,063	91,692	84,976	2,472	94,154	1·99	1·84	0·05	2·04
25-29...........	47,021	156,678	140,807	3,561	160,239	3·33	2·99	0·08	3·41
30-34...........	35,632	179,330	157,228	4,288	164,124	5·04	4·41	0·12	5·16
35-39...........	24,893	173,794	147,007	4,163	177,897	6·98	5·93	0·16	7·15
40-44...........	10,193	91,442	76,006	2,089	93,531	8·97	7·46	0·20	9·18
45 and over...........	1,065	10,700	8,742	274	10,974	10·05	8·21	0·26	10·30
Age not stated...........	103	364	321	16	380	3·53	3·12	0·16	3·69
Prince Edward Island...........	**1,969**	**8,120**	**7,344**	**165**	**8,285**	**4·12**	**3·73**	**0·08**	**4·21**
Under 20...........	83	118	113	1	119	1·42	1·36	0·01	1·43
20-24...........	393	778	721	23	798	1·97	1·83	0·06	2·03
25-29...........	453	1,445	1,377	32	1,517	3·07	2·85	0·07	3·14
30-34...........	477	2,256	2,048	35	2,301	4·75	4·29	0·07	4·82
35-39...........	369	2,234	1,995	48	2,282	6·05	5·41	0·13	6·18
40-44...........	145	1,082	954	22	1,104	7·41	6·53	0·15	7·56
45 and over...........	15	133	112	4	137	8·87	7·47	0·27	9·13
Age not stated...........	9	27	24	–	27	8·00	8·00	–	9·00
Nova Scotia...........	**10,455**	**40,169**	**36,415**	**1,252**	**41,421**	**3·84**	**3·48**	**0·12**	**3·96**
Under 20...........	829	1,076	1,032	51	1,127	1·30	1·24	0·06	1·36
20-24...........	2,754	5,566	5,177	164	5,730	2·04	1·89	0·06	2·10
25-29...........	2,589	8,589	7,874	268	8,857	3·32	3·04	0·10	3·42
30-34...........	2,087	9,662	8,725	281	9,943	4·63	4·18	0·13	4·76
35-39...........	1,528	9,589	8,558	307	9,996	6·34	5·67	0·20	6·54
40-44...........	623	4,984	4,432	163	5,147	8·00	7·11	0·26	8·26
45 and over...........	65	603	516	19	621	9·28	7·94	0·28	9·55
Age not stated...........	–	–	–	–	–	–	–	–	–
New Brunswick...........	**9,804**	**43,115**	**37,467**	**1,048**	**44,163**	**4·40**	**3·82**	**0·11**	**4·50**
Under 20...........	703	928	875	30	958	1·32	1·24	0·04	1·36
20-24...........	2,403	5,280	4,535	167	5,447	2·18	2·00	0·07	2·25
25-29...........	2,503	9,392	8,378	211	9,603	3·75	3·31	0·08	3·84
30-34...........	1,951	10,438	9,082	261	10,399	5·27	4·65	0·13	5·40
35-39...........	1,462	10,434	8,800	225	10,559	7·14	6·02	0·15	7·29
40-44...........	665	5,985	5,045	142	6,127	9·00	7·59	0·22	9·21
45 and over...........	66	657	545	11	668	9·95	8·26	0·17	10·12
Age not stated...........	1	2	2	–	2	2·00	2·00	–	2·00
Quebec...........	**80,834**	**398,859**	**339,137**	**7,239**	**406,118**	**4·93**	**4·20**	**0·09**	**5·02**
Under 20...........	2,536	3,809	3,555	107	3,916	1·33	1·24	0·04	1·36
20-24...........	18,390	39,145	35,700	555	40,001	2·13	1·94	0·05	2·18
25-29...........	22,446	82,292	72,500	1,418	83,707	3·67	3·23	0·06	3·73
30-34...........	17,291	104,061	88,713	1,842	105,903	5·82	4·98	0·10	5·93
35-39...........	13,068	105,492	87,559	1,884	107,876	8·11	6·70	0·14	8·25
40-44...........	5,539	56,553	45,480	1,014	57,567	10·22	8·29	0·18	10·40
45 and over...........	539	6,930	5,559	141	7,071	11·97	9·57	0·23	11·30
Age not stated...........	12	46	43	1	47	3·83	3·58	0·08	3·92
Ontario...........	**48,506**	**156,963**	**144,358**	**5,674**	**162,637**	**3·24**	**2·98**	**0·12**	**3·35**
Under 20...........	3,571	4,399	4,255	168	4,561	1·23	1·19	0·05	1·28
20-24...........	12,527	23,276	21,965	791	24,067	1·84	1·74	0·06	1·91
25-29...........	12,688	35,503	33,087	1,143	36,645	2·80	2·60	0·09	2·89
30-34...........	10,038	39,004	35,829	1,471	40,475	3·89	3·57	0·15	4·03

TABLE 13. Married mothers by birth-place and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

Birthplace and Age of Mother	Mothers	Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Canada—Con.									
Ontario—Con.									
35-39	6,687	34,779	31,424	1,387	36,166	5·20	4·70	0·21	5·41
40-44	2,623	18,039	16,069	625	18,664	6·88	6·12	0·24	7·12
45 and over	227	1,802	1,565	85	1,887	7·94	6·89	0·37	8·31
Age not stated	45	162	154	10	172	3·60	3·42	0·22	3·82
Manitoba	9,840	31,941	29,080	939	32,880	3·25	2·96	0·10	3·34
Under 20	787	944	919	32	976	1·20	1·17	0·04	1·24
20-24	3,159	5,967	5,520	180	6,047	1·86	1·75	0·06	1·91
25-29	2,823	8,618	7,934	242	8,860	3·05	2·81	0·09	3·14
30-34	1,660	7,263	6,617	237	7,499	4·36	3·97	0·14	4·50
35-39	1,010	6,059	5,329	160	6,219	6·00	5·28	0·16	6·16
40-44	361	2,579	2,496	79	2,958	7·98	6·91	0·22	8·19
45 and over	34	312	265	9	321	9·18	7·79	0·25	9·44
Age not stated	–	–	–	–	–	–	–	–	–
Saskatchewan	6,687	18,133	16,339	425	18,558	2·71	2·44	0·06	2·78
Under 20	1,051	1,302	1,262	44	1,346	1·24	1·20	0·04	1·28
20-24	3,067	5,818	5,468	131	5,949	1·90	1·78	0·04	1·94
25-29	1,521	5,013	4,517	117	5,130	3·30	2·97	0·08	3·37
30-34	625	3,088	2,684	63	3,151	4·94	4·29	0·10	5·04
35-39	281	1,784	1,502	39	1,823	6·35	5·35	0·14	6·49
40-44	123	907	785	29	995	7·88	6·38	0·23	8·09
45 and over	15	141	105	4	145	9·40	7·00	0·27	9·67
Age not stated	4	19	16	–	19	4·75	4·00	–	4·75
Alberta	4,534	11,781	10,608	250	12,061	2·60	2·34	0·06	2·66
Under 20	722	851	824	25	876	1·18	.1·14	0·03	1·21
20-24	2,064	3,835	3,567	115	3,950	1·86	1·73	0·06	1·91
25-29	1,090	3,494	3,164	77	3,571	3·21	2·90	0·07	3·28
30-34	408	1,922	1,688	33	1,957	4·71	4·14	0·09	4·80
35-39	202	1,319	1,079	22	1,341	6·53	5·34	0·11	6·64
40-44	39	321	224	4	325	8·23	5·61	0·10	8·33
45 and over	4	20	15	–	20	5·00	3·75	–	5·00
Age not stated	5	19	17	2	21	3·80	3·40	0·40	4·20
British Columbia	2,865	7,460	6,628	150	7,610	2·60	2·31	0·05	2·66
Under 20	358	426	417	16	442	1·19	1·16	0·04	1·23
20-24	1,059	1,810	1,719	33	1,843	1·71	1·62	0·03	1·74
25-29	727	1,848	1,672	33	1,881	2·54	2·30	0·05	2·59
30-34	427	1,651	1,427	42	1,700	3·88	3·34	0·10	3·98
35-39	228	1,163	977	18	1,179	5·10	4·29	0·07	5·17
40-44	50	395	310	6	401	7·90	6·20	0·12	8·02
45 and over	9	76	44	1	77	8·44	4·89	0·11	8·56
Age not stated	31	84	62	3	87	2·71	2·00	0·10	2·81
British Isles	27,533	85,473	77,744	2,945	86,420	3·09	2·79	0·11	3·10
Under 20	693	801	784	27	828	1·16	1·13	0·04	1·19
20-24	5,789	9,299	8,915	319	9,617	1·61	1·54	0·05	1·66
25-29	7,979	19,477	17,415	641	19,118	2·22	2·19	0·08	2·40
30-34	6,868	23,247	21,753	800	24,147	3·40	3·17	0·12	3·52
35-39	4,565	20,467	18,553	762	21,229	4·48	4·13	0·17	4·65
40-44	1,764	10,034	9,015	367	10,401	5·69	5·11	0·21	5·90
45 and over	160	1,091	907	26	1,037	6·26	5·67	0·16	6·42
Age not stated	15	49	44	4	53	3·27	2·93	0·27	3·53
England	17,248	53,621	49,966	1,831	55,452	3·11	2·89	0·11	.3·21
Under 20	442	511	505	18	529	1·16	1·14	0·04	1·20
20-24	3,484	5,739	5,508	181	5,920	1·65	1·58	0·05	1·70
25-29	4,780	11,593	10,948	383	11,976	2·43	2·29	0·08	2·51
30-34	4,300	15,112	14,081	521	15,633	3·51	3·27	0·12	3·64
35-39	2,946	13,215	12,284	494	13,809	4·52	4·17	0·17	4·69
40-44	1,174	6,649	5,954	210	6,859	5·66	5·07	0·18	5·84
45 and over	110	663	591	20	683	6·03	5·37	0·18	6·21
Age not stated	12	39	35	4	43	3·25	2·92	0·35	3·58

TABLE 13. Married mothers by birthplace and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

Birthplace and Age of Mother	Mothers	Children							
		Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
British Isles—Con.									
Ireland.................	2,624	7,658	7,127	296	7,954	2·92	2·72	0·11	3·03
Under 20............	61	68	66	2	70	1·11	1·08	0·03	1·15
20-24...............	567	865	828	23	888	1·53	1·46	0·04	1·57
25-29...............	779	1,733	1,639	70	1,802	2·22	2·10	0·09	2·31
30-34...............	624	2,111	1,950	69	2,180	3·38	3·13	0·11	3·49
35-39...............	425	1,934	1,781	81	2,015	4·55	4·19	0·19	4·74
40-44...............	155	807	923	50	957	5·74	5·21	0·32	6·06
45 and over.........	9	39	38	1	40	4·33	4·22	0·11	4·44
Age not stated.......	1	2	2	–	2	2·00	2·00	–	2·00
Scotland...............	7,310	20,193	18,887	751	20,944	2·76	2·58	0·10	2·87
Under 20............	170	190	193	7	205	1·17	1·14	0·04	1·21
20-24...............	1,596	2,612	2,353	104	2,556	1·54	1·47	0·07	1·60
25-29...............	2,240	4,770	4,520	184	4,654	2·13	2·02	0·08	2·21
30-34...............	1,779	5,319	5,177	188	5,707	3·10	2·91	0·11	3·21
35-39...............	1,090	4,732	4,361	165	4,897	4·34	4·00	0·15	4·49
40-44...............	394	2,229	2,013	98	2,327	5·66	5·11	0·25	5·91
45 and over.........	39	264	264	5	289	7·28	6·77	0·13	7·41
Age not stated.......	2	8	7	–	8	4·00	3·50	–	4·00
Wales.................	580	1,772	1,621	64	1,836	3·06	2·79	0·11	3·17
Under 20............	20	23	20	–	23	1·15	1·00	–	1·15
20-24...............	132	227	211	10	237	1·72	1·60	0·08	1·80
25-29...............	157	328	316	4	332	2·09	2·01	0·03	2·11
30-34...............	145	537	489	22	559	3·70	3·37	0·15	3·86
35-39...............	88	416	361	19	435	4·73	4·10	0·22	4·94
40-44...............	36	229	210	9	235	6·28	5·83	0·25	6·53
45 and over.........	2	15	14	–	15	7·50	7·00	–	7·50
Age not stated.......	–	–	–	–	–	–	–	–	–
British Possessions........	1,503	5,619	4,965	186	5,805	3·74	3·33	0·12	3·86
Under 20............	39	47	46	2	49	1·21	1·18	0·05	1·26
20-24...............	319	573	543	15	588	1·80	1·71	0·05	1·84
25-29...............	451	1,260	1,144	41	1,301	2·79	2·54	0·09	2·88
30-34...............	344	1,517	1,343	54	1,571	4·41	3·90	0·16	4·57
35-39...............	239	1,411	1,352	46	1,467	5·90	5·23	0·18	6·13
40-44...............	77	562	455	26	588	7·30	5·91	0·34	7·64
45 and over.........	12	112	94	2	114	9·33	7·83	0·17	9·50
Age not stated.......	2	7	6	–	7	3·50	3·00	–	3·50
Newfoundland...........	1,077	4,416	3,591	133	4,548	4·10	3·61	0·12	4·22
Under 20............	30	37	36	2	39	1·23	1·20	0·07	1·30
20-24...............	239	420	408	8	437	1·85	1·76	0·03	1·88
25-29...............	306	941	843	26	967	3·06	2·75	0·08	3·13
30-34...............	240	1,173	1,031	43	1,216	4·89	4·30	0·18	5·07
35-39...............	194	1,261	1,106	37	1,298	6·43	5·64	0·19	6·62
40-44...............	59	474	378	15	489	8·03	6·41	0·25	8·29
45 and over.........	10	94	84	2	96	9·40	8·40	0·20	9·60
Age not stated.......	1	6	5	–	6	6·00	5·00	–	6·00
Europe.................	23,570	91,380	81,381	2,493	93,879	3·88	3·45	0·11	3·98
Under 20............	673	801	772	19	820	1·19	1·15	0·03	1·22
20-24...............	5,393	9,344	8,763	274	9,618	1·73	1·63	0·05	1·78
25-29...............	6,972	19,769	17,993	552	20,321	2·84	2·58	0·08	2·91
30-34...............	5,136	22,909	20,216	603	23,512	4·46	3·94	0·12	4·58
35-39...............	3,730	24,312	21,409	641	24,953	6·52	5·74	0·17	6·69
40-44...............	1,446	12,316	10,569	328	12,641	8·52	7·31	0·23	8·74
45 and over.........	183	1,846	1,578	70	1,916	10·08	8·62	0·38	10·46
Age not stated.......	37	91	83	8	99	2·46	2·24	0·22	2·68
Austria................	2,604	13,533	12,132	337	14,170	5·31	4·66	0·13	5·44
Under 20............	56	73	69	2	75	1·30	1·23	0·04	1·34
20-24...............	503	1,001	927	23	1,024	1·95	1·84	0·05	2·03
25-29...............	642	2,409	2,144	48	2,457	3·78	3·34	0·07	3·83
30-34...............	604	3,601	3,120	89	3,690	5·96	5·18	0·15	6·11

TABLE 13.   Married mothers by birthplace and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

| Birthplace and Age of Mother | Mothers | Children | | | | | | | |
| | | Total | | | | Average | | | |
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Europe—Con.									
Austria—Con.									
35-39	564	4,472	3,044	114	4,586	7·93	6·99	0·20	8·13
40-44	200	1,976	1,675	51	2,027	9·88	8·38	0·26	10·14
45 and over	28	297	240	8	305	10·61	8·57	0·29	10·89
Age not stated	5	4	4	2	6	0·80	0·80	0·40	1·20
Belgium	517	1,682	1,521	44	1,726	3·25	2·94	0·09	3·34
Under 20	22	24	24	–	24	1·09	1·09	–	1·09
20-24	98	161	153	1	162	1·64	1·56	0·01	1·65
25-29	167	421	389	11	432	2·52	2·33	0·07	2·59
30-34	120	451	400	15	466	3·76	3·33	0·12	3·88
35-39	75	392	344	9	401	5·23	4·59	0·12	5·35
40-44	33	203	184	6	209	6·15	5·58	0·18	6·33
45 and over	2	30	27	2	32	15·00	13·50	1·00	16·00
Age not stated	–	–	–	–	–	–	–	–	–
Denmark	400	1,047	957	46	1,093	2·62	2·39	0·12	2·73
Under 20	14	15	14	–	15	1·07	1·00	–	1·07
20-24	104	147	141	4	151	1·41	1·36	0·04	1·45
25-29	127	252	232	16	268	1·98	1·83	0·13	2·11
30-34	92	278	258	17	295	3·02	2·80	0·18	3·21
35-39	44	203	184	5	208	4·61	4·18	0·11	4·73
40-44	19	152	128	4	156	8·00	6·74	0·21	8·21
45 and over	–	–	–	–	–	–	–	–	–
Age not stated	–	–	–	–	–	–	–	–	–
Finland	696	1,534	1,407	68	1,602	2·20	2·02	0·10	2·30
Under 20	25	27	26	–	27	1·08	1·04	–	1·08
20-24	192	261	255	8	269	1·36	1·33	0·04	1·40
25-29	247	440	414	16	456	1·78	1·68	0·06	1·85
30-34	139	313	275	18	331	2·25	1·98	0·13	2·38
35-39	59	306	263	17	322	5·17	4·46	0·29	5·46
40-44	30	164	152	9	173	5·47	5·07	0·30	5·77
45 and over	3	15	13	–	15	5·00	4·33	–	5·00
Age not stated	1	9	9	–	9	9·00	9·00	–	9·00
France	397	1,626	1,489	42	1,668	4·10	3·75	0·11	4·20
Under 20	5	7	6	–	7	1·40	1·20	–	1·40
20-24	75	144	142	4	148	1·92	1·89	0·05	1·97
25-29	102	309	285	8	317	3·03	2·79	0·08	3·11
30-34	99	470	433	11	481	4·75	4·37	0·11	4·86
35-39	83	437	403	13	450	5·27	4·86	0·16	5·42
40-44	29	219	191	5	224	7·55	6·59	0·17	7·72
45 and over	4	40	29	1	41	10·00	7·25	0·25	10·25
Age not stated	–	–	–	–	–	–	–	–	–
Germany	982	2,857	2,644	92	2,949	2·91	2·69	0·09	3·00
Under 20	34	40	39	1	41	1·18	1·15	0·03	1·21
20-24	279	463	441	15	478	1·66	1·60	0·05	1·73
25-29	317	775	728	28	803	2·44	2·30	0·09	2·53
30-34	202	637	582	25	662	3·15	2·88	0·12	3·28
35-39	90	460	421	11	471	5·11	4·68	0·12	5·23
40-44	60	431	383	12	443	7·18	6·38	0·20	7·38
45 and over	4	51	50	–	51	12·75	12·50	–	12·75
Age not stated	–	–	–	–	–	–	–	–	–
Holland	327	1,056	987	23	1,079	3·23	3·05	0·09	3·30
Under 20	9	8	8	1	9	0·89	0·89	0·11	1·00
20-24	66	107	105	3	110	1·62	1·59	0·05	1·67
25-29	109	279	267	7	286	2·56	2·45	0·06	2·62
30-34	77	274	256	6	280	3·56	3·32	0·08	3·64
35-39	48	268	247	4	272	5·58	5·15	0·08	5·67
40-44	17	111	105	2	113	6·53	6·18	0·12	6·65
45 and over	1	9	9	–	9	9·00	9·00	–	9·00
Age not stated	–	–	–	–	–	–	–	–	–

TABLE 13.   Married mothers by birthplace and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.

Birthplace and Age of Mother	Mothers	Children							
		Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Europe—Con.									
Hungary	1,215	4,258	3,668	113	4,371	3·50	3·02	0·09	3·60
Under 20	44	49	47	2	51	1·11	1·07	0·05	1·16
20-24	284	468	432	19	481	1·65	1·52	0·07	1·69
25-29	415	1,208	1,061	38	1,246	2·91	2·56	0·09	3·00
30-34	281	1,212	1,003	41	1,253	4·31	3·57	0·15	4·46
35-39	139	849	709	16	865	6·11	5·10	0·12	6·22
40-44	46	429	378	3	432	9·33	8·22	0·07	9·39
45 and over	5	42	37	–	43	8·40	7·40	–	8·60
Age not stated	1	1	1	–	1	1·00	1·00	–	1·00
Italy	1,822	7,453	6,561	235	7,688	4·09	3·60	0·13	4·22
Under 20	72	89	89	1	90	1·24	1·24	0·01	1·25
20-24	369	759	700	25	784	2·06	1·90	0·07	2·12
25-29	459	1,461	1,314	50	1,511	3·18	2·86	0·11	3·29
30-34	451	1,989	1,767	43	2,032	4·41	3·92	0·10	4·51
35-39	330	1,972	1,718	76	2,048	5·98	5·21	0·23	6·21
40-44	121	1,015	833	29	1,044	8·39	6·88	0·24	8·63
45 and over	15	150	125	11	161	10·00	8·33	0·73	10·73
Age not stated	5	18	15	–	18	3·60	3·00	–	3·60
Norway	726	2,470	2,321	71	2,541	3·40	3·20	0·10	3·50
Under 20	11	13	13	–	13	1·18	1·18	–	1·18
20-24	118	193	180	1	194	1·64	1·53	0·01	1·64
25-29	207	486	467	23	509	2·35	2·26	0·11	2·46
30-34	166	563	531	18	581	3·39	3·20	0·11	3·50
35-39	136	636	588	16	652	4·68	4·32	0·12	4·79
40-44	77	493	458	8	501	6·40	5·95	0·10	6·51
45 and over	11	86	78	5	91	7·82	7·09	0·45	8·27
Age not stated	–	–	–	–	–	–	–	–	–
Poland	5,325	19,217	17,124	513	19,730	3·61	3·22	0·10	3·71
Under 20	154	187	177	6	193	1·21	1·15	0·04	1·25
20-24	1,396	2,265	2,118	76	2,341	1·62	1·52	0·05	1·68
25-29	1,673	4,513	4,119	124	4,637	2·70	2·46	0·07	2·77
30-34	1,059	4,639	4,049	115	4,754	4·48	3·91	0·11	4·59
35-39	770	5,057	4,463	118	5,175	6·57	5·79	0·15	6·72
40-44	245	2,117	1,819	53	2,170	8·64	7·42	0·22	8·86
45 and over	39	413	357	18	431	10·59	9·15	0·46	11·05
Age not stated	13	26	23	3	29	2·00	1·77	0·23	2·23
Roumania	1,124	5,088	4,367	177	5,265	4·53	3·89	0·16	4·68
Under 20	38	49	45	1	50	1·29	1·18	0·03	1·32
20-24	229	465	429	22	487	2·03	1·87	0·10	2·13
25-29	323	1,028	907	29	1,057	3·18	2·81	0·09	3·27
30-34	281	1,429	1,211	59	1,488	5·09	4·31	0·21	5·30
35-39	178	1,414	1,219	24	1,438	7·94	6·85	0·13	8·08
40-44	65	619	483	35	654	9·52	7·43	0·54	10·06
45 and over	8	78	67	7	85	9·75	8·38	0·88	10·63
Age not stated	2	6	6	–	6	3·00	3·00	–	3·00
Russia	4,971	21,611	19,265	484	22,095	4·35	3·88	0·10	4·44
Under 20	114	136	132	5	141	1·19	1·16	0·04	1·24
20-24	1,005	1,928	1,814	46	1,974	1·76	1·66	0·04	1·80
25-29	1,358	4,100	3,781	97	4,200	3·03	2·78	0·07	3·10
30-34	1,065	5,222	4,658	89	5,311	4·81	4·32	0·08	4·89
35-39	890	6,306	5,419	152	6,358	6·97	6·09	0·17	7·14
40-44	377	3,496	2,995	81	3,577	9·27	7·94	0·21	9·49
45 and over	45	492	416	12	504	10·93	9·24	0·27	11·20
Age not stated	7	22	20	2	24	3·14	2·89	0·29	3·43

TABLE 13. **Married mothers by birthplace and age, and total and average number of their children born alive, now living, born dead and born alive or dead, Canada, 1930—Con.**

Birthplace and Age of Mother	Mothers	Children							
		Total				Average			
		Born Alive	Now Living	Born Dead	Born Alive or Dead	Born Alive	Now Living	Born Dead	Born Alive or Dead
Europe—Con.									
Sweden	630	2,320	2,116	50	2,370	3·68	3·41	0·08	3·76
Under 20	17	19	19	–	19	1·12	1·12	–	1·12
20–24	125	232	214	5	237	1·86	1·71	0·04	1·90
25–29	177	452	433	9	461	2·55	2·44	0·05	2·60
30–34	119	468	439	4	472	3·93	3·61	0·03	3·97
35–39	128	668	617	22	690	5·22	4·82	0·17	5·39
40–44	53	375	336	8	383	7·08	6·34	0·15	7·23
45 and over	11	106	98	2	108	9·64	8·91	0·18	9·82
Age not stated	–	–	–	–	–	–	–	–	–
Asia	1,233	4,878	4,536	91	4,969	3·96	3·68	0·07	4·03
Under 20	30	42	40	–	42	1·40	1·33	–	1·40
20–24	252	504	480	11	515	2·00	1·90	0·04	2·04
25–29	336	1,039	993	24	1,063	3·09	2·96	0·07	3·16
30–34	305	1,383	1,288	23	1,406	4·53	4·22	0·08	4·61
35–39	222	1,340	1,223	26	1,366	6·04	5·51	0·12	6·15
40–44	71	452	401	7	459	6·37	5·65	0·10	6·46
45 and over	15	113	106	–	113	7·53	7·07	–	7·53
Age not stated	2	5	5	–	5	2·50	2·50	–	2·50
China	193	984	936	7	991	5·10	4·85	0·04	5·13
Under 20	2	2	2	–	2	1·00	1·00	–	1·00
20–24	32	67	63	–	67	2·09	1·97	–	2·09
25–29	35	143	137	1	144	4·09	3·91	0·03	4·11
30–34	56	310	297	1	311	5·54	5·30	0·02	5·55
35–39	46	311	297	2	313	6·76	6·45	0·04	6·80
40–44	15	92	86	3	95	6·13	5·73	0·20	6·33
45 and over	7	59	54	–	59	8·43	7·71	–	8·43
Age not stated	–	–	–	–	–	–	–	–	–
Japan	821	2,994	2,812	59	3,053	3·65	3·43	0·07	3·72
Under 20	19	25	24	–	25	1·32	1·26	–	1·32
20–24	175	343	327	6	349	1·96	1·87	0·03	1·99
25–29	240	708	684	17	725	2·95	2·85	0·07	3·02
30–34	201	837	809	18	875	4·26	3·98	0·09	4·35
35–39	139	790	728	15	805	5·68	5·24	0·11	5·79
40–44	40	228	208	2	231	5·70	5·20	0·07	5·77
45 and over	6	41	39	–	41	6·83	6·50	–	6·83
Age not stated	1	2	2	–	2	2·00	2·00	–	2·00
United States	11,964	45,747	41,791	1,305	47,052	3·82	3·49	0·11	3·93
Under 20	560	712	687	22	734	1·26	1·21	0·04	1·30
20–24	2,994	5,726	5,414	157	5,883	1·91	1·81	0·05	1·96
25–29	3,256	10,159	9,393	257	10,416	3·12	2·88	0·08	3·20
30–34	2,552	11,633	10,372	337	11,970	4·56	4·14	0·13	4·69
35–39	1,837	11,458	10,352	318	11,776	6·24	5·64	0·17	6·41
40–44	601	5,391	4,815	194	5,585	7·80	6·97	0·28	8·08
45 and over	64	658	639	20	672	10·20	8·42	0·31	10·52
Age not stated	4	15	14	–	15	3·75	3·50	–	3·75

TABLE 14. Live births in Canada by residence of mother, and birth rates (crude, expected and standardized) for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, 1930-1932

County or Census Division and City, Town, etc.	No. of Births by Residence of Mother				Population, 1931	Birth Rates per 1,000 Population		
	1930	1931	1932	Average, 1930-32		Crude	Expected	Standardized[1]
CANADA[2]	243,495	240,473	235,666	239,878	10,362,833	23·1	23·0	23·1
Prince Edward Island	1,752	1,879	2,028	1,886	88,038	21·4	19·4	25·4
Kings	315	334	363	337	19,147	17·6	17·1	23·7
Prince	752	783	875	803	31,506	25·5	19·2	30·5
Charlottetown, t.	241	263	284	263	14,101	18·7	25·4	16·9
Remaining parts	444	499	506	483	23,290	20·7	18·0	26·4
Nova Scotia	11,333	11,614	11,630	11,526	512,846	22·5	20·8	24·8
Annapolis	324	298	329	317	16,297	19·5	18·8	23·7
Antigonish	164	182	168	171	10,073	17·0	17·6	22·2
Cape Breton	2,472	2,492	2,396	2,453	92,419	26·5	20·5	29·7
Sydney, c.	566	592	541	566	23,089	24·5	22·7	24·0
Glace Bay, t.	601	616	610	609	20,706	29·4	21·3	31·7
New Waterford, t.	293	307	262	287	7,745	37·1	21·0	40·5
North Sydney, t.	171	170	147	163	6,139	26·5	24·5	28·4
Sydney Mines, t.	230	244	230	231	7,769	29·7	20·0	34·3
Remaining parts	621	563	600	597	26,971	22·1	17·9	26·3
Colchester	568	572	573	571	25,051	22·8	21·7	24·2
Truro, t.	160	162	176	166	7,901	21·0	28·2	17·1
Remaining parts	408	410	397	405	17,150	23·6	18·7	29·0
Cumberland	812	763	827	811	36,366	22·3	20·7	24·3
Amherst, t.	109	123	128	120	7,456	16·1	23·0	10·1
Springhill, t.	193	184	172	183	6,355	28·8	21·6	30·7
Remaining parts	510	480	527	506	22,561	22·5	19·6	26·4
Digby	386	432	416	411	18,353	22·4	17·8	29·0
Guysborough	369	374	384	376	15,443	24·3	17·7	31·6
Halifax	2,257	2,386	2,411	2,351	100,204	23·5	25·2	21·4
Halifax, c.	1,380	1,429	1,421	1,410	59,275	23·8	28·2	19·4
Dartmouth, t.	194	197	193	195	9,100	21·4	23·5	21·0
Remaining parts	683	760	797	747	31,829	23·5	19·6	27·6
Hants	459	489	498	482	19,303	24·9	19·5	29·4
Inverness	372	415	433	407	21,055	19·3	17·6	25·2
Kings	496	484	499	493	24,357	20·2	20·8	22·4
Lunenburg	626	572	599	599	31,074	19·3	19·5	22·7
Pictou	767	773	757	765	39,018	19·6	21·0	18·7
New Glasgow, t.	193	168	171	177	8,858	20·0	24·6	18·7
Stellarton, t.	121	127	134	127	5,002	25·4	22·4	26·1
Remaining parts	453	478	452	461	25,158	18·3	19·6	21·5
Queens	225	262	238	239	10,112	22·5	20·5	25·2
Richmond	213	242	239	231	11,098	20·8	16·4	27·1
Shelburne	275	267	268	253	12,455	22·7	18·7	27·8
Victoria	176	126	148	133	6,006	16·9	16·1	18·2
Yarmouth	422	435	437	431	20,839	20·6	20·1	23·6
Yarmouth, t.	135	162	149	149	7,005	21·3	25·1	19·4
Remaining parts	287	273	288	283	13,834	20·4	17·4	26·9
New Brunswick	10,500	10,756	10,774	10,677	408,219	26·2	21·1	28·5
Albert	170	169	160	166	7,679	21·6	19·3	25·8
Carleton	415	440	429	428	20,796	20·6	20·6	23·0
Charlotte	409	414	431	438	21,337	20·5	21·0	22·4
Gloucester	1,547	1,559	1,611	1,572	41,914	37·5	18·7	46·2
Bathurst, t.	498	739	754	727	23,478	31·0	17·5	40·7
Kent	351	378	357	362	19,407	18·7	17·5	24·5
Kings	948	896	935	926	24,527	37·8	19·2	45·3
Madawaska	280	269	243	264	6,430	41·1	19·6	48·2
Edmundston, t.	668	627	692	662	18,097	36·6	19·3	43·6
Remaining parts	932	948	899	923	34,124	27·0	19·3	32·2
Northumberland	210	222	214	219	11,219	19·5	19·3	24·4
Queens	1,021	1,142	1,044	1,069	29,859	35·8	19·0	41·5
Restigouche	239	197	157	208	6,505	32·0	19·3	21·5
Campbellton, t.	722	945	857	861	23,354	36·9	20·6	29·2
Remaining parts	1,254	1,272	1,347	1,291	61,013	21·0	25·4	29·2
St. John	1,053	1,049	1,064	1,065	47,514	22·4	26·3	18·7
Saint John, c.	201	233	253	226	14,099	16·0	22·1	15·4
Remaining parts	153	434	421	435	13,565	32·1	24·4	29·1
Sunbury	450	434	421	435	13,565	24·2	26·5	18·1
Victoria	1,214	1,277	1,360	1,257	57,326	21·9	19·2	24·0
Westmorland	475	492	454	474	20,509	23·1	25·9	18·2
Moncton, t.	738	785	826	783	36,817	21·3	19·6	22·4
Remaining parts	668	603	712	691	32,454	21·3	20·4	22·1
York	170	147	155	157	8,350	17·8	26·6	15·4
Fredericton, t.	499	546	557	534	23,624	22·6	20·4	25·4

[1] The standardized rates were computed from the crude and expected rates carried to two places of decimals.

[2] Exclusive of Yukon and the Northwest Territories.

TABLE 14. Live births in Canada by residence of mother, and birth rates (crude, expected and standardized) for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, 1930-1932—Con.

County or Census Division and City, Town, etc.	No. of Births by Residence of Mother				Population, 1931	Birth Rate per 1,000 Population		
	1930	1931	1932	Average, 1930-32		Crude	Expected	Standardized
Quebec	83,926	83,859	82,424	83,403	2,874,255	29·0	23·9	27·9
Abitibi	907	907	975	930	23,692	39·3	18·4	49·1
Argenteuil	404	404	427	412	18,976	21·7	20·1	24·9
Arthabaska	888	854	897	879	27,159	32·0	21·0	35·1
Victoriaville, t.	218	221	218	219	6,213	35·2	26·4	30·7
Remaining parts	640	633	679	651	20,946	31·1	19·4	36·9
Bagot	467	493	552	514	16,914	30·4	20·0	53·3
Beauce, c.	1,635	1,680	1,674	1,663	44,793	37·1	20·1	42·5
Beauharnois	537	665	671	624	25,163	24·8	22·6	25·3
Valleyfield, t.	338	350	385	358	11,411	31·4	24·9	20·0
Remaining parts	199	315	286	267	13,752	19·4	20·7	21·6
Bellechasse	719	775	735	743	22,008	33·8	18·7	41·5
Berthier	527	554	521	534	19,506	27·4	21·4	29·4
Bonaventure	1,069	1,068	1,141	1,099	32,432	33·9	18·0	43·3
Brome	194	205	224	208	12,423	16·7	19·1	20·1
Chambly	512	495	493	500	26,501	18·7	23·2	18·5
Longueuil, t.	139	140	119	133	5,407	24·6	23·9	23·7
St-Lambert, t.	90	84	65	80	6,075	13·2	24·3	13·3
Remaining parts	283	271	309	288	15,319	18·8	21·0	20·0
Champlain	2,071	2,147	2,034	2,084	59,935	34·8	20·8	38·4
Cap-de-la-Madeleine, c.	359	347	293	333	8,748	38·1	22·2	39·5
Grand'Mère, c.	221	219	212	217	6,401	33·6	22·6	34·2
La Tuque, t.	305	347	284	312	7,571	39·6	22·1	41·2
Remaining parts	1,186	1,234	1,245	1,222	36,855	33·2	19·9	38·3
Charlevoix	835	795	830	821	22,940	35·8	16·8	52·4
Châteauguay	303	310	300	304	13,125	23·2	20·3	26·2
Chicoutimi	2,601	2,357	2,418	2,459	55,724	44·1	21·3	47·7
Chicoutimi, c.	498	493	560	517	11,877	43·6	23·1	43·4
Jonquière, c.	496	410	414	441	9,448	46·7	21·6	49·7
Remaining parts	1,607	1,451	1,444	1,501	34,399	43·6	20·6	48·8
Compton*	537	555	527	540	21,917	21·6	19·6	28·9
Deux-Montagnes	377	379	374	377	14,294	26·4	20·8	29·2
Dorchester	1,028	1,031	1,022	1,027	27,984	36·7	19·2	43·9
Drummond	751	925	929	851	26,179	32·5	22·6	33·1
Drummondville, t.	319	295	349	321	6,609	48·6	29·8	37·5
Remaining parts	462	550	577	530	19,570	27·1	20·0	30·0
Frontenac	967	1,014	925	969	25,951	37·7	16·2	45·1
Gaspé	1,405	1,451	1,438	1,431	37,675	38·0	18·7	46·7
Hull	2,103	2,061	1,948	2,037	83,570	31·9	21·5	34·1
Hull, c.	1,065	1,009	934	989	29,433	33·6	24·3	33·2
Remaining parts	1,038	1,052	1,054	1,048	34,437	30·4	20·0	35·0
Huntingdon	274	266	245	262	12,345	21·2	19·1	25·5
Iberville	239	245	219	234	9,402	24·9	21·0	27·3
Iles-de-la-Madeleine¹	293	276	300	304	7,942	38·3	19·6	44·4
Joliette	856	880	888	875	27,885	31·7	22·0	33·1
Joliette, c.	329	344	340	340	10,765	31·0	25·5	25·4
Remaining parts	527	536	542	535	16,720	31·5	19·8	36·9
Kamouraska	790	756	755	777	23,954	32·4	19·0	49·4
Labelle	707	752	799	753	20,140	37·4	19·2	44·8
Lac-St-Jean	2,214	2,249	2,343	2,266	50,253	45·1	20·0	51·8
Laprairie	357	349	349	352	13,491	26·1	20·8	28·9
L'Assomption	424	481	436	447	15,323	29·2	21·3	31·4
Lévis	1,012	986	995	988	35,656	27·7	22·3	28·4
Lévis, c.	298	282	275	285	11,724	24·3	23·7	23·6
Lauzon, t.	196	221	182	200	7,084	28·2	24·4	28·9
Remaining parts	518	483	500	503	16,848	29·9	20·5	33·6
l'Islet	643	622	648	638	19,404	32·9	18·0	37·7
Lotbinière	746	734	809	762	23,634	33·1	19·2	39·6
Maskinongé	509	453	548	513	16,930	32·0	21·6	34·1
Matane	1,980	1,854	1,799	1,878	45,272	41·5	19·7	48·3
Mégantic	1,292	1,167	1,188	1,212	35,492	34·1	20·7	37·9
Thetford Mines, c.	536	421	371	443	10,701	41·4	23·6	40·3
Remaining parts	746	746	817	770	24,791	31·1	19·4	36·7
Missisquoi	408	447	460	455	19,636	23·2	22·6	23·6
Montcalm	395	410	413	406	13,165	29·3	20·3	33·2
Montmagny	629	661	651	647	20,239	32·0	20·1	36·5
Montmorency	577	573	577	576	16,955	33·2	20·0	37·3
Montreal and Jesus Islands²	24,128	23,701	22,465	23,618	1,020,018	23·2	25·2	18·9
Lachine, c.	594	461	393	418	18,630	22·4	24·0	20·0
Montreal, c.	20,649	20,068	19,161	19,968	818,577	24·4	28·0	20·0
Outremont, c.	200	211	251	241	28,641	8·4	25·1	5·5
Verdun, c.	1,463	1,552	1,506	1,507	60,745	24·8	26·9	19·7
Westmount, c.	199	156	165	173	24,235	7·1	37·8	4·3
Remaining parts	1,102	1,197	1,201	1,167	63,542	18·3	24·2	17·3
Napierville	210	226	185	207	7,600	27·0	19·6	41·0
Nicolet	857	894	868	873	28,673	30·4	21·0	33·4
Papineau	876	921	896	898	29,246	30·7	19·1	37·0
Pontiac	531	531	550	546	21,241	25·7	18·2	32·5

* Including Compton township of Sherbrooke County.
¹ Usually considered as part of Gaspé County.
² Includes Laval and Hochelaga.

TABLE 14.   Live births in Canada by residence of mother, and birth rates (crude, expected and standardized) for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, 1930-1932—Con.

County or Census Division and City, Town, etc.	No. of Births by Residence of Mother				Population, 1931	Birth Rates per 1,000 Population		
	1930	1931	1932	Average, 1930-32		Crude	Expected	Standardized
Quebec—Con.								
Portneuf.....................	1,218	1,158	1,147	1,174	35,890	32·7	21·6	34·8
Quebec......................	5,354	5,551	5,280	5,395	170,915	31·6	26·9	27·0
Quebec, c.-c.................	4,345	4,385	4,194	4,309	130,594	33·0	27·7	27·4
Remaining parts............	1,009	1,166	1,086	1,086	40,321	26·9	24·0	25·8
Richelieu...................	585	629	572	595	21,483	27·7	22·6	28·2
Sorel, c....................	306	316	279	300	10,320	29·1	23·9	28·9
Remaining parts............	279	313	293	295	11,163	26·4	22·0	27·6
Richmond...................	774	809	709	764	24,950	30·6	20·5	34·3
Rimouski...................	1,022	1,204	1,269	1,165	33,151	35·1	21·1	38·4
Rimouski, t................	246	241	237	241	5,589	43·1	25·6	38·7
Remaining parts............	776	963	1,032	924	27,562	33·5	20·1	38·3
Rouville*...................	324	351	350	342	13,776	24·8	21·7	26·3
Saguenay*..................	748	719	774	747	19,577	38·2	19·3	45·4
Shefford....................	844	894	856	865	28,262	30·6	21·9	32·1
Granby, c..................	341	389	382	371	10,587	35·0	26·4	30·5
Remaining parts............	503	505	474	494	17,675	27·9	19·2	33·4
Sherbrooke*.................	964	939	890	928	37,386	24·8	26·8	21·4
Sherbrooke, c..............	775	728	698	734	25,933	25·4	26·2	20·7
Remaining parts²...........	179	211	192	194	8,453	23·0	21·4	24·0
Soulanges..................	242	224	223	230	9,099	25·3	20·2	28·7
Stanstead..................	652	643	612	636	25,118	25·3	22·4	26·0
Magog, t..................	222	202	242	222	6,302	35·2	25·3	32·1
Remaining parts............	430	441	370	414	18,816	22·0	21·4	23·6
St-Hyacinthe...............	656	624	619	633	25,854	24·5	24·3	21·9
St-Hyacinthe, c...........	371	362	356	363	13,448	27·0	29·1	21·3
Remaining parts............	285	262	263	270	12,406	21·8	22·0	22·7
St-Jean....................	471	457	444	457	17,640	25·9	24·1	24·7
St-Jean, c.................	312	309	290	306	11,256	27·2	26·7	23·5
Remaining parts............	159	148	148	152	6,393	23·8	19·7	27·7
St-Maurice.................	2,609	2,450	2,363	2,476	69,095	35·8	24·4	33·8
Shawinigan Falls, c.........	652	620	624	632	15,345	41·2	24·7	35·8
Trois-Rivières, c..........	1,355	1,324	1,226	1,302	35,450	36·7	26·8	31·5
Remaining parts............	599	515	513	542	18,300	29·6	19·4	35·1
Temiskaming................	755	814	853	807	20,009	39·2	20·2	44·6
Témiscouata................	1,812	1,836	1,770	1,808	50,294	35·9	20·1	41·2
Rivière-du-Loup, c.........	237	237	231	235	8,499	27·7	24·6	25·9
Remaining parts............	1,575	1,599	1,545	1,573	41,795	37·6	19·1	46·2
Terrebonne.................	1,219	1,173	1,171	1,188	38,611	30·8	22·8	31·0
St. Jérôme, t..............	550	329	292	323	8,967	36·9	26·8	30·9
Remaining parts............	863	853	879	865	29,644	29·2	21·6	31·1
Vaudreuil..................	267	288	278	277	12,015	23·1	23·0	23·1
Verchères..................	352	348	362	354	12,603	28·1	21·5	30·0
Wolfe......................	503	564	581	579	16,911	34·2	18·8	41·9
Yamaska....................	511	538	505	518	16,520	30·8	20·0	34·4
Ontario................	71,029	69,017	66,678	68,908	3,431,683	20·1	23·9	19·3
Addington..................	159	168	145	157	6,879	22·8	18·9	27·8
Algoma.....................	1,113	1,129	1,201	1,148	46,444	24·7	21·9	27·0
Sault Ste. Marie, c........	592	576	567	578	23,082	25·0	23·7	24·3
Remaining parts............	521	553	634	569	23,362	24·4	18·4	30·5
Brant......................	1,021	994	929	977	53,476	18·3	23·0	18·3
Brantford, c...............	635	607	537	593	30,107	19·7	24·9	18·2
Remaining parts............	386	383	383	384	23,369	16·4	20·5	18·4
Bruce......................	780	833	846	820	42,288	19·4	19·0	22·4
Carleton...................	3,392	3,439	3,428	3,420	170,046	20·1	26·7	17·3
Ottawa, c..................	2,456	2,505	2,514	2,503	126,872	19·7	28·7	15·8
Eastview, c................	233	201	227	220	6,486	32·9	22·9	34·4
Remaining parts............	673	739	687	697	36,688	19·1	20·6	21·3
Cochrane...................	1,677	1,700	1,820	1,762	58,033	30·4	20·9	33·5
Timmins, t................	496	480	491	492	14,200	34·6	24·8	32·1
Remaining parts............	1,181	1,301	1,329	1,270	43,833	29·0	19·6	34·0
Dufferin...................	276	264	254	261	14,992	17·5	20·3	19·9
Dundas.....................	284	295	272	284	16,098	17·6	19·6	20·7
Durham.....................	471	436	409	439	25,782	17·0	19·9	19·9
Elgin......................	662	663	666	664	43,484	15·2	20·5	17·0
St. Thomas, c.............	263	236	216	238	15,434	15·4	23·4	15·1
Remaining parts............	399	427	449	422	28,066	15·1	19·0	18·2
Essex......................	4,068	3,584	3,126	3,593	159,780	22·5	25·1	20·6
East Windsor, c...........	475	376	332	394	14,251	27·6	25·8	24·7
Remaining parts............	1,003	1,393	1,177	1,391	63,108	22·0	27·4	18·5
Frontenac..................	878	886	918	908	45,156	20·5	22·4	19·0
Kingston, c................	442	469	479	479	22,173	21·7	26·3	18·2
Remaining parts............	411	417	439	429	22,317	19·3	19·2	23·0
Glengarry..................	392	421	421	411	18,666	22·0	18·5	27·4
Grenville..................	278	267	276	274	16,327	16·8	20·3	19·0

¹ Exclusive of New Quebec from which no vital statistics returns were received for the years 1930-32.
² Not including Compton township.

TABLE 14. Live births in Canada by residence of mother, and birth rates (crude, expected and standardized) for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, 1930-1932—Con.

County or Census Division and City, Town, etc.	No. of Births by Residence of Mother				Population, 1931	Birth Rates per 1,000 Population		
	1930	1931	1932	Average, 1930-32		Crude	Expected	Standardized
Ontario—Con.								
Grey	1,095	1,079	1,035	1,070	57,699	18·5	20·8	20·5
Owen Sound, c.	247	253	237	246	12,839	19·2	24·9	18·4
Remaining parts	848	826	798	824	44,860	18·4	19·9	21·3
Haldimand	390	395	374	386	21,428	18·0	20·6	20·1
Haliburton	152	146	167	155	5,997	25·8	19·5	30·5
Halton	432	415	419	422	26,558	15·9	22·4	16·3
Hastings	1,310	1,367	1,275	1,317	58,546	22·4	20·9	24·6
Belleville, c.	255	280	259	265	13,790	19·2	25·2	17·0
Trenton, t.	162	136	160	153	6,276	24·4	22·2	25·5
Remaining parts	893	951	856	900	38,780	23·2	19·3	27·7
Huron	802	728	683	738	45,180	16·3	10·4	19·4
Kenora	471	483	455	470	21,940	21·4	21·1	23·3
Kenora, t.	135	143	139	138	6,766	20·4	24·1	19·5
Remaining parts	336	335	326	332	15,180	21·9	19·8	25·4
Kent	1,338	1,289	1,268	1,298	62,865	20·6	21·8	21·3
Chatham, c.	350	335	287	309	14,569	21·2	25·3	19·3
Remaining parts	952	1,004	981	989	48,296	20·5	20·8	22·6
Lambton	1,024	1,076	940	1,013	54,674	18·5	21·0	20·3
Sarnia, c.	348	406	348	384	18,191	21·1	24·4	19·9
Remaining parts	626	670	592	629	36,483	17·2	19·3	20·5
Lanark	600	624	619	631	32,856	19·2	21·3	20·8
Smith's Falls, t.	151	120	103	125	7,108	17·6	22·9	17·6
Remaining parts	509	504	507	507	25,748	19·7	20·8	21·7
Leeds	693	614	648	652	35,187	18·5	21·2	20·1
Brockville, t.	205	197	170	191	9,730	19·6	24·8	18·2
Remaining parts	488	417	478	461	25,431	18·1	19·8	21·0
Lennox	222	209	190	207	12,004	17·2	19·6	20·2
Lincoln	1,037	991	931	986	54,199	18·2	23·6	17·7
St. Catharines, c.	545	535	467	516	24,753	20·8	26·1	18·4
Remaining parts	492	456	464	471	29,446	16·0	21·6	17·0
Manitoulin	237	282	263	261	10,734	24·3	21·1	26·6
Middlesex	1,907	1,906	1,898	1,904	118,241	16·1	24·0	15·4
London, c.	1,187	1,172	1,151	1,170	71,148	16·4	26·0	14·0
Remaining parts	720	734	747	734	47,093	15·6	19·6	18·3
Muskoka	457	416	450	441	20,985	21·0	21·5	22·5
Nipissing	1,195	1,209	1,175	1,193	41,207	29·0	20·4	32·6
North Bay, c.	389	378	361	373	15,528	24·0	24·9	23·8
Remaining parts	815	831	814	820	25,679	31·9	18·7	39·3
Norfolk	627	615	654	632	31,389	20·2	21·2	21·5
Simcoe, t.	104	90	115	103	5,226	19·7	26·6	17·0
Remaining parts	523	525	539	529	26,133	20·2	20·2	23·1
Northumberland	559	551	557	554	31,452	17·5	19·9	20·3
Cobourg, t.	119	112	108	113	5,834	19·4	23·7	18·8
Remaining parts	438	439	449	441	25,618	17·2	19·0	20·8
Ontario	1,277	1,156	1,049	1,161	59,667	19·5	23·1	19·4
Oshawa, c.	663	577	470	570	23,439	24·3	27·3	20·5
Whitby, t.	58	47	58	53	5,046	10·5	22·3	10·6
Remaining parts	556	532	521	537	31,182	17·2	20·0	19·8
Oxford	923	791	827	847	47,825	17·7	21·6	18·9
Woodstock, c.	206	175	174	185	11,395	16·3	25·3	14·3
Ingersoll, t.	106	70	92	89	5,233	17·0	22·2	17·6
Remaining parts	611	546	561	573	31,197	18·3	20·0	21·1
Parry Sound	609	628	691	643	25,900	24·8	19·4	29·5
Peel	476	495	483	485	28,156	17·2	21·5	18·4
Brampton, t.	107	98	89	97	5,532	17·5	24·2	16·0
Remaining parts	369	399	394	387	22,624	17·1	20·8	18·9
Perth	907	923	841	892	51,392	17·4	20·9	18·1
Stratford, c.	359	336	281	322	17,742	18·1	23·9	17·5
Remaining parts	557	592	560	570	33,650	16·9	19·3	20·2
Peterborough	901	861	864	875	43,958	19·9	22·3	20·6
Peterborough, c.	478	485	452	462	22,327	20·7	24·9	19·1
Remaining parts	425	403	412	413	21,631	19·1	19·9	22·4
Prescott	695	686	648	676	24,590	27·5	19·4	37·8
Hawkesbury, t.	180	155	152	162	5,177	31·3	21·1	34·4
Remaining parts	515	528	496	513	19,419	26·4	19·3	31·5
Prince Edward	319	311	299	310	16,083	18·0	19·0	21·8
Rainy River	382	388	390	387	17,350	22·3	20·3	25·2
Fort Frances, t.	161	138	122	140	5,479	25·6	24·3	24·2
Remaining parts	221	250	268	248	11,859	20·7	18·6	25·7
Renfrew	1,275	1,180	1,192	1,209	52,227	23·1	21·0	23·3
Pembroke, t.	247	228	254	242	9,348	25·8	25·9	22·9
Renfrew, v.	103	125	116	115	5,296	21·7	24·2	20·7
Remaining parts	925	827	822	852	37,583	22·7	19·4	26·0
Russell	519	532	542	531	18,457	28·7	18·6	35·5
Simcoe	1,534	1,619	1,502	1,551	83,567	18·1	20·0	20·2
Barrie, t.	153	139	131	141	7,776	18·1	23·1	18·0
Collingwood, t.	109	95	99	101	5,509	17·4	22·7	16·4
Midland, t.	146	179	123	149	6,929	21·1	23·3	20·6
Orillia, t.	170	150	176	167	8,183	20·4	24·4	19·2
Remaining parts	956	959	974	963	54,970	17·6	19·4	20·5
Stormont	840	849	815	835	32,024	25·7	22·0	26·6
Cornwall, t.	386	354	341	360	11,125	32·4	24·4	30·4
Remaining parts	454	495	474	474	21,398	22·2	20·7	24·6

TABLE 14. Live births in Canada by residence of mother, and birth rates (crude, expected and standardized) for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, 1930-1932—Con.

County or Census Division and City, Town, etc.	No. of Births by Residence of Mother				Population 1931	Birth Rates per 1,000 Population		
	1930	1931	1932	Average 1930-32		Crude	Expected	Standardized
Ontario—Con.								
Sudbury—	1,767	1,841	1,818	1,809	58,251	31·1	21·0	34·0
Sudbury, c.	635	748	673	685	18,518	37·0	25·1	33·9
Port Arthur, c.	1,132	1,093	1,145	1,123	39,733	28·3	19·1	34·0
Thunder Bay—	1,385	1,357	1,348	1,363	65,118	20·9	22·6	21·3
Fort William, c.	553	585	537	558	26,277	21·2	23·7	20·6
Port Arthur, c.	431	361	403	398	19,818	20·1	24·9	18·6
Remaining parts.	401	411	408	407	19,023	21·4	18·7	26·4
Timiskaming	921	969	1,078	989	37,043	26·7	20·9	29·4
Victoria—	462	425	443	443	25,544	17·1	20·1	19·6
Lindsay, t.	156	134	129	139	7,566	18·5	23·2	18·4
Remaining parts.	306	291	316	304	18,339	16·6	18·9	20·1
Waterloo—	1,882	1,888	1,708	1,826	89,852	20·3	25·0	18·7
Galt, c.	242	251	236	243	14,006	17·3	25·4	15·7
Kitchener, c.	723	719	686	683	30,793	22·2	26·0	17·8
Preston, t.	118	112	112	114	6,280	18·2	24·8	16·8
Waterloo, t.	165	168	144	159	8,095	19·6	20·8	16·8
Remaining parts.	634	638	608	627	30,678	20·4	20·8	22·6
Welland—	1,766	1,722	1,561	1,680	82,731	20·3	23·8	19·7
Niagara Falls, c.	423	437	384	415	19,046	21·8	26·0	18·8
Welland, c.	250	244	221	238	10,709	22·2	26·0	18·7
Fort Erie, t.	108	104	95	102	5,904	17·3	25·4	15·6
Port Colborne, t.	215	192	150	186	5,503	28·6	24·8	26·6
Thorold, t.	117	90	90	99	5,092	19·4	22·2	20·1
Remaining parts.	643	655	621	640	35,477	18·0	21·3	19·5
Wellington—	1,162	1,121	1,051	1,111	58,164	19·1	22·2	19·8
Guelph, c.	481	430	419	443	21,075	21·0	26·3	18·4
Remaining parts.	681	691	632	668	37,089	18·0	18·2	20·9
Wentworth—	3,748	3,602	3,361	3,590	190,019	18·9	25·8	16·8
Hamilton, c.	3,204	3,139	2,884	3,076	155,547	19·8	26·0	17·1
Dundas, t.	97	87	78	87	5,026	17·3	23·7	16·2
Remaining parts.	447	436	399	427	29,446	14·5	22·2	18·0
York—	17,234	16,174	15,469	16,292	856,955	19·0	28·2	15·5
Toronto, c.	12,446	11,421	10,954	11,607	631,207	18·4	29·1	14·5
Weston, t.	146	164	122	144	6,800	21·2	25·0	18·8
New Toronto, t.	187	162	167	172	7,146	24·1	26·7	20·7
Remaining parts.	4,455	4,427	4,226	4,369	211,802	20·6	25·8	18·4
Manitoba.	14,357	14,228	14,028	14,188	700,139	20·3	23·1	20·2
Division No. 1.	704	755	749	736	22,817	32·3	18·7	39·7
Division No. 2.	1,141	1,190	1,177	1,145	38,510	29·5	21·3	31·9
Division No. 3.	622	584	554	587	26,753	21·9	21·2	23·8
Division No. 4.	367	334	361	354	18,353	19·4	21·6	20·6
Division No. 5.	989	974	945	969	46,228	21·0	20·2	23·9
Transcona, t.	107	109	101	106	5,747	18·4	23·0	18·2
Remaining parts.	882	865	844	864	40,481	21·3	19·7	24·9
Division No. 6.	5,098	5,023	4,776	4,966	283,828	17·5	27·1	14·7
Portage la Prairie, c.	115	135	105	118	6,597	17·9	23·2	17·7
St. Boniface, c.	348	350	306	335	16,305	20·5	26·9	17·5
Winnipeg, c.	3,680	3,615	3,361	3,553	218,755	16·2	28·5	13·1
Remaining parts.	955	920	1,000	960	42,141	22·8	21·8	24·0
Division No. 7.	639	649	592	627	34,912	17·9	22·4	17·5
Brandon, c.	304	309	244	283	17,082	16·6	24·7	15·4
Remaining parts.	335	349	348	344	19,830	17·3	20·4	19·5
Division No. 8.	361	361	332	351	19,840	17·7	20·4	19·9
Division No. 9.	815	761	768	781	45,414	17·2	21·1	18·7
Division No. 10.	362	384	367	371	17,916	20·1	19·3	24·7
Division No. 11.	555	544	600	576	26,100	20·5	20·1	23·4
Division No. 12.	556	614	577	582	24,244	23·9	17·4	31·6
Division No. 13.	527	566	572	555	24,263	22·9	19·5	26·9
Division No. 14.	613	363	578	594	35,978	22·9	19·9	27·0
Division No. 15.	254	232	243	243	10,008	24·3	20·0	27·9
Division No. 16.	624	788	840	751	30,648	24·5	18·7	30·1
Saskatchewan.	22,215	21,442	20,912	21,523	921,785	23·3	21·0	25·5
Division No. 1.	965	921	837	888	41,544	21·4	20·3	24·2
Division No. 2.	994	964	956	935	42,931	21·8	20·4	24·6
Weyburn, t.	77	95	72	81	5,002	16·2	23·4	14·7
Remaining parts.	917	859	784	853	37,829	22·5	19·7	26·3
Division No. 3.	1,171	1,068	1,032	1,090	46,581	23·3	19·9	26·9
Division No. 4.	683	620	554	620	28,128	22·0	20·3	25·0
Division No. 5.	1,294	1,167	1,219	1,227	53,948	22·7	20·3	25·2
Division No. 6.	2,543	2,419	2,686	2,549	109,906	21·4	24·4	20·0
Regina, c.	1,353	1,237	1,023	1,204	53,209	22·6	29·2	17·8
Remaining parts.	1,190	1,182	1,063	1,145	56,697	20·2	20·3	23·0
Division No. 7.	1,389	1,289	1,217	1,297	63,230	20·6	21·3	24·0
Moose Jaw, c.	411	361	343	372	21,299	17·5	24·3	16·3
Remaining parts.	968	928	874	925	41,931	22·1	19·7	25·7
Division No. 8.	1,228	1,165	1,071	1,155	49,561	23·4	20·3	26·5
Swift Current, c.	132	107	97	106	5,296	20·0	24·6	20·2
Remaining parts.	1,096	1,058	984	1,049	44,955	23·7	19·9	27·4
Division No. 9.	1,433	1,431	1,504	1,469	60,539	24·3	20·0	27·8
Yorkton, t.	123	105	111	113	5,027	22·5	24·7	20·9
Remaining parts.	1,350	1,326	1,393	1,356	55,512	24·4	19·6	28·6

TABLE 14. Live births in Canada by residence of mother, and birth rates (crude, expected and standardized) for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, 1930-1932—Con.

County or Census Division and City, Town, etc.	No. of Births by Residence of Mother				Population, 1931	Birth Rates per 1,000 Population		
	1930	1931	1932	Average, 1930-32		Crude	Expected	Standardized
Saskatchewan—Con.								
Division No. 10.	1,071	995	1,028	1,031	41,890	24·6	19·0	29·9
Division No. 11.	1,973	1,744	1,616	1,778	87,976	20·2	23·8	19·5
Saskatoon, c.	957	887	789	878	43,291	20·3	28·1	16·6
Remaining parts.	1,016	857	827	900	44,685	20·1	19·7	23·5
Division No. 12.	869	902	787	853	40,612	21·0	20·3	23·8
Division No. 13.	1,120	1,000	1,036	1,069	42,632	25·1	19·8	29·2
Division No. 14.	1,092	1,256	1,363	1,237	46,222	26·8	19·4	31·7
Division No. 15.	2,345	2,305	2,381	2,344	83,497	28·0	20·5	31·4
Prince Albert, c.	232	217	227	225	9,905	22·7	25·6	20·4
Remaining parts.	2,113	2,088	2,154	2,118	73,792	28·7	19·8	33·3
Division No. 16.	1,234	1,177	1,285	1,232	48,736	25·3	19·7	29·5
North Battleford, c.	147	121	114	127	5,986	21·2	24·7	19·7
Remaining parts.	1,087	1,056	1,171	1,105	42,750	25·8	19·6	31·2
Division No. 17.	673	752	784	736	27,315	26·9	19·4	31·9
Division No. 18.	169	217	256	214	6,339	33·8	21·5	36·2
Alberta.	17,632	17,197	16,966	17,265	731,605	23·6	21·8	24·9
Division No. 1.	717	696	641	685	28,849	23·7	21·2	25·7
Medicine Hat, c.	209	172	179	187	10,300	18·2	23·6	17·7
Remaining parts.	508	524	462	·498	18,549	26·8	19·9	30·9
Division No. 2.	1,420	1,353	1,331	1,368	57,180	23·9	21·8	26·2
Lethbridge, c.	325	317	276	307	13,489	22·8	23·4	20·6
Remaining parts.	1,092	1,036	1,055	1,061	43,697	24·3	20·7	26·9
Division No. 3.	354	329	334	339	15,056	22·5	19·6	26·4
Division No. 4.	712	570	530	604	29,067	20·8	21·4	22·3
Division No. 5.	584	539	459	527	26,451	19·8	19·2	23·7
Division No. 6.	3,040	2,780	2,670	2,830	140,624	20·1	24·5	18·9
Calgary, c.	1,551	1,573	1,469	1,574	83,761	18·8	26·4	16·4
Remaining parts.	1,389	1,207	1,201	1,266	56,863	22·1	21·6	23·5
Division No. 7.	838	817	872	857	38,106	22·5	19·6	26·4
Division No. 8.	1,374	1,296	1,271	1,314	61,016	21·5	21·3	23·3
Division No. 9.	457	512	474	481	24,503	19·3	20·9	22·2
Division No. 10.	1,655	1,536	1,464	1,552	58,049	26·7	20·5	30·0
Division No. 11.	2,938	2,987	2,815	2,913	126,832	23·0	24·2	21·8
Edmonton, c.	1,694	1,692	1,552	1,646	79,197	20·8	27·6	17·8
Remaining parts.	1,244	1,295	1,263	1,267	47,635	26·6	19·9	30·7
Division No. 12.	311	340	420	357	13,815	25·8	19·8	30·1
Division No. 13.	804	872	830	835	24,936	33·5	19·0	40·4
Division No. 14.	1,085	1,228	1,275	1,196	33,458	35·8	19·9	41·9
Division No. 15.	385	409	503	432	13,664	31·6	19·8	36·8
Division No. 16.	683	775	818	759	27,943	27·2	19·8	31·6
Division No. 17.	250	198	221	223	5,788	38·5	19·5	46·1
British Columbia[a].	10,861	10,431	10,226	10,503	694,263	15·1	21·7	16·1
Division No. 1.	490	444	411	448	22,566	19·9	19·9	19·2
Division No. 2.	678	711	717	703	40,455	17·4	21·3	13·7
Nelson, c.	102	130	105	112	5,992	18·7	23·2	18·5
Trail, c.	209	205	239	218	7,573	28·8	24·4	27·1
Remaining parts.	367	376	373	372	26,890	13·8	20·0	10·6
Division No. 3.	717	744	727	727	40,523	17·9	20·4	20·5
Division No. 4.	5,056	5,389	5,055	5,371	379,858	14·1	22·9	14·2
New Westminster, c.	331	363	322	339	17,524	19·3	23·3	19·1
North Vancouver, c.	148	116	134	133	8,510	15·6	21·9	16·4
Vancouver, c.	4,331	3,368	3,096	3,365	246,593	13·6	24·4	12·9
Remaining parts.	1,556	1,542	1,506	1,535	107,231	14·3	19·7	15·0
Division No. 5.	1,627	1,451	1,471	1,516	114,335	13·3	20·9	14·6
Nanaimo, c.	164	123	108	132	6,745	19·6	22·6	19·7
Victoria, c.	519	494	410	491	39,082	12·6	22·3	12·9
Remaining parts.	945	834	903	894	68,511	13·0	19·9	13·1
Division No. 6.	112	93	120	108	6,395	16·4	18·7	20·2
Division No. 6 A.	434	429	418	427	25,030	17·1	19·5	20·1
Kamloops, c.	115	119	103	116	6,167	18·6	20·8	19·9
Remaining parts.	319	310	315	316	18,863	16·8	19·1	20·2
Division No. 7.	103	103	114	106	4,995	21·2	19·2	25·4
Division No. 8.	209	215	236	220	12,658	17·4	18·9	21·3
Division No. 8 A.	211	218	248	226	11,626	19·4	17·2	26·0
Division No. 9 A.	155	174	214	182	9,908	18·4	19·2	23·0
Division No. 9.	7	6	4	6	718	7·9	13·9	13·1
Division No. 9 B.	16	17	20	18	638	27·7	17·2	37·0
Division No. 9 C.	268	284	232	261	15,676	16·6	18·9	20·5
Prince Rupert, c.	114	120	83	106	6,350	16·7	21·3	18·4
Remaining parts.	154	164	149	156	9,326	16·7	17·2	23·0
Division No. 9 D.	32	56	45	44	1,660	26·4	17·4	42·0
Division No. 10 A.	9	...	1	3*	199	...	13·3	...
Division No. 10 B.	5	2	1	3	228	11·8	13·2	20·7
Division No. 11.	26	116	176	137	6,685	20·5	15·4	27·2

[a] Divisions in British Columbia are census divisions, and the correspondence of their subdivisions with those in census publications is as follows:—3 A=3 a, b, c, d; 3 B=3 e, f; 6 A=6 a, b, c; 6 B=6 d, e, f, g; 8 A=8 a, b, c, d; 8 B=8 e, f, g; 9 A=9 a; 9 B=9 b; 9 C=9 c, d, e; 9 D=9 f; 10 A=10 a; 10 B=10 b; 10 C=10 c, d.

[b] Crude rates worked on average births carried to one decimal place.

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932

No.	County or Census Division and City, Town, etc.	Births, 1930			
		By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
	CANADA¹	243,495	¹	¹	243,495
	Prince Edward Island	1,749	7	10	1,752
1	Kings	300	1	16	315
2	Prince	755	15	12	752
3	Queens	694	22	13	685
4	Charlottetown, c...................................	335	100	5	241
5	Remaining parts	358	3	89	444
	Nova Scotia	11,316	46	27	11,333
6	Annapolis	327	8	11	324
7	Antigonish	201	41	4	164
8	Cape Breton	2,491	32	13	2,472
9	Sydney, c...	615	61	12	566
10	Glace Bay, t.	705	106	2	601
11	New Waterford, t.	300	10	3	293
12	North Sydney, t.	172	6	5	171
13	Sydney Mines, t.	232	16	4	220
14	Remaining parts	467	4	158	621
15	Colchester	580	23	11	568
16	Truro, t.	194	39	5	160
17	Remaining parts	386	11	33	408
18	Cumberland	812	16	16	812
19	Amherst, t..	129	21	1	109
20	Springhill, t.	229	39	3	193
21	Remaining parts	454	6	62	510
22	Digby	385	7	8	386
23	Guysborough	339	3	34	369
24	Halifax	2,316	82	24	2,257
25	Halifax, c...	1,555	194	19	1,380
26	Dartmouth, t.	167	11	38	194
27	Remaining parts	593	10	100	683
28	Hants	450	11	20	459
29	Inverness	360	3	15	372
30	Kings	488	9	17	400
31	Lunenburg	618	8	16	626
32	Pictou	764	15	18	767
33	New Glasgow, t.	317	133	8	192
34	Stellarton, t.	95	5	31	121
35	Remaining parts	352	10	111	453
36	Queens	215	3	13	225
37	Richmond	193	1	21	213
38	Shelburne	266	2	11	275
39	Victoria	113	-	13	126
40	Yarmouth	430	17	3	422
41	Yarmouth, t.	184	51	2	135
42	Remaining parts	252	2	37	287
	New Brunswick	10,534	64	30	10,500
43	Albert	155	1	16	170
44	Carleton	420	15	10	415
45	Charlotte	466	9	12	469
46	Gloucester	1,543	6	10	1,547
47	Kent	689	5	14	698
48	Kings	327	2	26	351
49	Madawaska	943	4	9	948
50	Edmundston, t.	279	6	7	280
51	Remaining parts	664	1	5	668
52	Northumberland	937	18	13	932
53	Queens	200	4	14	210
54	Restigouche	1,099	93	14	1,021
55	Campbellton, t.	395	97	1	230
56	Remaining parts	704	3	81	782
57	St. John	1,346	109	17	1,254
58	Saint John, c..	1,223	190	20	1,053
59	Remaining parts	123	11	89	201
60	Sunbury	143	2	12	152
61	Victoria	449	3	8	450

¹ No adjustments have been made for births in Canada to mothers resident in other countries or for births in other countries to mothers resident in Canada.

For footnotes 2-8, see those of corresponding number on pages 164, 165, 166 and 169.

TABLE 15. **Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.**

Births, 1931				Births, 1932				
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	No.
240,473	[1]	[1]	240,473	235,666	[1]	[1]	235,666	
1,879	8	8	1,879	2,027	6	7	2,028	
325	2	11	334	353	2	12	363	1
778	9	14	783	880	11	6	875	2
776	25	11	762	794	17	13	790	3
371	116	8	263	388	109	5	284	4
405	8	102	499	406	2	102	506	5
11,615	36	37	11,614	11,629	23	24	11,630	
291	3	10	298	328	7	8	329	6
213	40	9	182	219	56	5	168	7
2,493	21	20	2,492	2,417	29	8	2,396	8
643	61	10	592	601	67	7	541	9
693	76	2	616	724	121	7	610	10
316	11	2	307	270	17	9	262	11
176	10	4	170	149	11	9	147	12
244	11	11	244	243	16	3	230	13
421	1	143	563	430	6	132	606	14
575	19	16	572	580	22	15	573	15
194	41	9	102	213	42	5	176	16
381	7	36	410	307	8	38	397	17
792	16	17	793	828	19	18	827	18
144	24	3	123	150	25	6	128	19
228	45	1	184	217	45	-	172	20
420	6	72	486	461	8	74	527	21
428	2	6	432	411	4	9	416	22
334	2	42	374	335	2	51	384	23
2,445	82	23	2,386	2,440	59	30	2,411	24
1,051	243	21	1,429	1,620	227	28	1,421	25
158	14	53	197	148	10	55	193	26
636	8	132	760	672	9	134	797	27
478	7	18	489	498	13	19	498	28
403	1	13	415	417	3	19	433	29
475	5	14	484	488	8	19	499	30
579	14	7	572	596	12	15	599	31
780	20	13	773	758	24	23	757	32
359	194	3	168	353	153	1	171	33
76	9	60	127	78	6	62	134	34
345	6	139	478	327	5	133	452	35
200	1	13	202	237	-	2	230	36
232	-	10	242	228	-	13	239	37
284	5	5	257	280	-	6	286	38
120	1	2	120	136	-	2	148	39
443	11	3	435	447	13	2	437	40
358	34	5	162	180	33	2	149	41
249	3	27	273	267	2	23	288	42
10,801	74	29	10,756	10,510	53	17	10,774	
152	3	20	169	150	7	17	160	43
443	12	9	440	434	12	7	429	44
426	16	7	414	438	9	1	431	45
1,558	15	18	1,559	1,616	9	4	1,611	46
712	6	23	729	741	2	3	754	47
358	10	30	378	323	1	35	357	48
893	3	6	896	935	2	2	935	49
272	10	7	269	209	2	6	243	50
621	5	11	627	696	4	-	692	51
945	9	13	948	896	4	3	890	52
227	4	9	232	199	2	17	214	53
1,149	32	26	1,142	1,062	24	16	1,014	54
291	102	5	197	254	72	5	187	55
858	2	89	945	798	3	61	857	56
1,357	103	18	1,272	1,428	92	11	1,347	57
1,425	184	18	1,049	1,296	216	14	1,094	58
154	1	20	173	132	9	13	153	59
169	1	8	169	177	-	13	169	60
427	1	8	434	422	4	3	421	61

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

No	County or Census Division and City, Town, etc.	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
			Births, 1930		
	New Brunswick—Con.				
1	Westmorland.................	1,214	31	31	1,214
2	Moncton, c.................	525	67	18	476
3	Remaining parts............	689	8	57	738
4	York.........................	668	25	26	669
5	Fredericton, c..............	265	40	5	170
6	Remaining parts............	403	3	20	499
	Quebec..................	83,635	58	359	83,936
7	Abitibi.....................	905	9	11	907
8	Argenteuil..................	398	5	11	404
9	Arthabaska..................	850	2	10	858
10	Victoriaville, t...........	214	-	4	218
11	Remaining parts............	636	2	6	640
12	Bagot......................	496	2	4	497
13	Beauce.....................	1,631	4	8	1,636
14	Beauharnois................	534	6	9	537
15	Valleyfield, c.............	340	6	5	338
16	Remaining parts............	194	1	6	199
17	Bellechasse................	713	-	6	719
18	Berthier...................	528	4	3	527
19	Bonaventure................	1,072	2	19	1,089
20	Brome......................	198	13	9	194
21	Chambly....................	490	6	28	512
22	Chapleau...................	137	4	6	139
23	St-Lambert, c..............	74	8	24	90
24	Remaining parts............	279	8	10	283
25	Champlain..................	2,065	13	19	2,071
26	Cap-de-la-Madeleine, c.....	357	1	3	359
27	Grand'Mère, c..............	221	1	1	221
28	La Tuque, t................	312	9	2	305
29	Remaining parts............	1,175	2	19	1,186
30	Charlevoix.................	831	2	6	835
31	Châteauguay................	298	2	6	303
32	Chicoutimi.................	2,595	1	7	2,601
33	Chicoutimi, c..............	498	4	4	498
34	Jonquière, t...............	499	7	4	496
35	Remaining parts............	1,598	5	14	1,607
36	Compton²....................	523	3	17	537
37	Deux-Montagnes.............	371	-	6	377
38	Dorchester.................	1,028	3	3	1,028
39	Drummond...................	776	5	10	781
40	Drummondville, t...........	314	8	13	319
41	Remaining parts............	462	10	10	462
42	Frontenac..................	961	2	8	967
43	Gaspé......................	1,408	3	3	1,408
44	Hull.......................	1,934	16	135	2,103
45	Hull, c....................	1,019	12	58	1,065
46	Remaining parts............	965	9	92	1,038
47	Huntingdon.................	267	1	8	274
48	Iberville..................	233	2	8	239
49	Ile-de-la-Madeleine².......	279	3	-	276
50	Joliette...................	801	10	5	856
51	Joliette, c................	332	7	4	329
52	Remaining parts............	579	6	4	527
53	Kamouraska.................	786	1	5	790
54	Labelle....................	702	3	8	707
55	Lac-St-Jean................	2,209	-	8	2,214
56	Laprairie..................	360	9	3	367
57	L'Assomption...............	423	5	7	424
58	Lévis......................	1,007	5	10	1,012
59	Lévis, c...................	309	15	4	298
60	Lauzon, t..................	197	3	2	196
61	Remaining parts............	501	1	18	518
62	L'Islet....................	645	4	2	643
63	Lotbinière.................	748	3	1	746
64	Maskinongé.................	513	4	1	509
65	Matane.....................	1,970	6	10	1,980
66	Mégantic...................	1,281	9	10	1,282
67	Thetford Mines, c..........	531	4	9	536
68	Remaining parts............	750	5	1	746
69	Missisquoi.................	456	10	12	458
70	Montcalm...................	396	5	4	395
71	Montmagny..................	629	5	6	629

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

Births, 1931				Births, 1932				No.
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	
1,295	40	22	1,277	1,284	24	20	1,280	1
557	79	14	492	511	68	11	454	2
738	14	61	785	773	7	60	826	3
705	28	16	693	725	36	23	712	4
192	51	6	147	190	52	8	155	5
513	13	46	546	520	8	39	557	6
83,604	50	303	83,859	83,214	4	250	82,424	
969	14	12	907	967	8	16	975	7
395	2	1	404	409	5	23	427	8
855	2	1	854	895	1	3	897	9
229	-	1	221	213	-	5	218	10
630	2	-	633	682	-	5	679	11
491	3	4	493	549	4	8	552	12
1,678	2	7	1,680	1,670	4	8	1,674	13
647	3	21	665	661	4	14	671	14
352	3	5	350	387	5	3	385	15
295	2	22	315	274	3	15	286	16
774	3	4	775	731	-	4	735	17
551	3	4	554	520	3	4	531	18
1,046	4	26	1,068	1,125	5	18	1,141	19
201	1	11	205	230	14	3	224	20
455	2	42	495	456	6	42	493	21
136	8	12	140	106	9	22	119	22
71	-	20	84	61	2	11	65	23
248	-	23	271	289	-	25	306	24
2,120	2	29	2,147	2,025	7	16	2,034	25
346	3	4	347	293	3	3	293	26
218	2	3	219	211	2	3	212	27
347	6	6	347	253	1	2	284	28
1,209	-	25	1,234	1,235	5	12	1,245	29
797	1	2	798	833	5	2	830	30
302	-	3	305	297	1	4	300	31
2,353	3	7	2,357	2,416	3	4	2,418	32
490	5	3	493	558	3	5	560	33
438	20	8	413	416	5	3	414	34
1,425	6	32	1,451	1,442	7	9	1,444	35
533	-	22	555	505	2	24	527	36
309	-	10	379	371	2	5	374	37
1,030	5	6	1,031	1,021	2	7	926	38
842	3	6	845	919	3	10	926	39
290	2	7	295	344	4	9	349	40
552	4	2	550	371	1	9	377	41
1,000	1	6	1,018	920	-	5	925	42
1,450	2	3	1,451	1,437	2	3	1,438	43
1,970	25	116	2,061	1,863	11	96	1,948	44
985	20	44	1,009	874	15	35	894	45
985	13	80	1,052	989	8	73	1,054	46
309	7	-	266	243	8	4	245	47
244	2	6	248	212	8	4	216	48
302	2	-	300	330	1	4	335	49
879	4	5	880	892	6	2	888	50
343	4	5	344	352	7	1	346	51
536	1	1	536	540	2	4	542	52
786	1	1	780	756	2	1	755	53
750	1	3	752	791	1	9	799	54
2,237	1	4	2,240	2,336	1	8	2,343	55
348	3	1	349	346	-	3	349	56
484	4	1	481	434	3	2	436	57
983	2	5	986	956	7	17	966	58
285	9	6	282	223	19	11	275	59
225	6	2	221	180	7	9	192	60
473	1	11	483	493	1	17	509	61
620	2	4	622	645	-	3	648	62
728	-	6	734	805	4	2	806	63
482	6	1	483	547	1	2	548	64
1,840	3	8	1,854	1,791	1	9	1,799	65
1,164	4	7	1,167	1,190	10	2	1,188	66
418	-	3	421	376	2	-	371	67
434	5	8	746	820	5	3	817	68
408	4	10	447	455	3	4	400	69
408	-	3	410	411	2	4	413	70
658	-	3	661	643	2	9	651	71

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

No.	County or Census Division and City, Town, etc.	Births, 1930			
		By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
	Quebec—Con.				
1	Montmorency	569	-	8	577
2	Montreal and Jesus Islands	24,221	161	158	24,218
3	Lachine, c	418	25	6	399
4	Montreal, c	20,953	662	355	20,646
5	Outremont, c	140	1	121	260
6	Verdun, c	1,128	6	341	1,463
7	Westmount, c	290	280	95	199
8	St-Laurent, t	129	-	10	149
9	Remaining parts	1,053	9	58	1,102
10	Naperville	208	-	2	210
11	Nicolet	858	3	2	857
12	Papineau	859	8	25	876
13	Pontiac	512	5	44	551
14	Portneuf	1,200	7	17	1,218
15	Quebec	5,440	95	9	5,354
16	Quebec, c	4,454	112	6	4,348
17	Remaining parts	986	7	27	1,006
18	Richelieu	582	4	6	585
19	Sorel, t	303	3	6	306
20	Remaining parts	280	5	4	279
21	Richmond	770	9	13	774
22	Rimouski	1,024	5	3	1,022
23	Rimouski, t.	249	3	-	246
24	Remaining parts	775	3	4	776
25	Rouville	321	4	7	324
26	Saguenay[5]	745	2	5	748
27	Shefford	829	3	18	844
28	Granby, c	338	-	3	341
29	Remaining parts	491	4	16	503
30	Sherbrooke[6]	994	51	11	954
31	Sherbrooke, c	832	67	10	775
32	Remaining parts[7]	162	5	22	179
33	Soulanges	239	-	3	242
34	Stanstead	646	6	12	652
35	Magog, t	222	3	3	222
36	Remaining parts	424	15	21	430
37	St-Hyacinthe	656	6	6	656
38	St-Hyacinthe, c	376	7	2	371
39	Remaining parts	280	-	5	285
40	St-Jean	478	16	9	471
41	St-Jean, c	326	19	5	312
42	Remaining parts	152	2	9	159
43	St-Maurice	2,604	13	15	2,606
44	Shawinigan Falls, c	653	3	2	652
45	Trois-Rivières, c	1,350	9	14	1,355
46	Remaining parts	601	2	-	599
47	Temiskaming	730	5	30	755
48	Témiscouata	1,809	2	5	1,812
49	Rivière-du-Loup, c	238	5	4	237
50	Remaining parts	1,571	-	4	1,575
51	Terrebonne	1,208	5	16	1,219
52	St-Jérôme, t	352	1	5	356
53	Remaining parts	856	5	12	863
54	Vaudreuil	256	1	12	267
55	Verchères	352	1	1	352
56	Wolfe	588	7	12	593
57	Yamaska	516	3	-	511
	Ontario	71,263	382	148	71,029
58	Addington	129	7	37	159
59	Algoma	1,079	11	45	1,113
60	Sault Ste. Marie, c	642	59	9	592
61	Remaining parts	437	8	92	521
62	Brant	1,052	47	16	1,021
63	Brantford, c	732	108	11	635
64	Remaining parts	320	25	91	386
65	Bruce	760	26	46	780
66	Carleton	3,693	355	54	3,392
67	Ottawa, c	3,028	580	38	2,486
68	Eastview, t	212	3	24	233
69	Remaining parts	453	8	228	673

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

	Births, 1931				Births, 1932			No.
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	
558		8	566	543	4	6	545	1
23,574	193		23,791	22,941	207		22,345	2
480	34	9	461	409	28	12	303	3
20,482	710	208	20,068	19,651	770	310	19,191	4
113		98	211	130	1	122	251	5
1,179	5	378	1,162	1,153	265		138	6
361	257	82	156	333	11	97	165	7
137		10	146	127		11	138	8
1,116	1	90	1,197	1,108	11	104	1,201	9
218	9	3	228	182		3	185	10
894	2	2	894	860	3	5	868	11
900	2	29	921	888	10	18	896	12
503	2	30	531	530	6	32	556	13
1,146	2	1	1,158	1,131	3	19	1,147	14
5,603	711	20	5,551	5,347	78	11	5,280	15
1,140	20	20	4,355	4,209	106		4,194	16
1,140		20	1,166	1,057	6	35	1,080	17
629	2	2	629	578	1		572	18
315	1	2	316	279	1	1	279	19
314	3	1	313	294	1		293	20
800		15	806	693		16	709	21
1,206	4	15	1,304	1,272	5	2	1,269	22
241	1	1	241	240	3		237	23
965	1	1	963	1,032	4	4	1,032	24
349	3	5	351	346	2	0	350	25
722	4	1	710	771		3	774	26
880	4	18	894	837	7	26	856	27
388	4	5	389	378	4	8	382	28
492	3	10	565	459	4	19	474	29
999	60	6	939	757	73	5	690	30
799	70	5	728	769	76		693	31
209	6	17	211	188	7	11	192	32
226	4	2	224	217		6	223	33
631	6	18	643	594	3	21	612	34
202	1	1	202	236		6	243	35
420		18	441	355	4	16	370	36
532	10	2	624	626	11	4	619	37
371	11	2	362	363	10	3	356	38
261		1	262	263	2		263	39
462	13	8	457	448	9	5	444	40
316	13	6	309	310	16	2	290	41
146		2	148	138		10	148	42
2,464	12	7	2,459	2,369	12	6	2,363	43
525	5		620	624	2	2	624	44
1,327	11	8	1,324	1,232	10	1	1,226	45
512	1	4	515	513		15	513	46
790	6	20	814	840	5	18	853	47
1,836	5	5	1,836	1,770	1	7	1,776	48
240	5	3	237	234	3		231	49
1,380	3	5	1,000	1,536	1	10	1,545	50
1,164	3	5	1,173	1,159	8	21	1,171	51
318		2	330	286	1	7	292	52
645	5		553	853	7	14	879	53
279	2	11	283	271			276	54
340		8	348	355		7	362	55
560	2	6	564	570	1	12	581	56
535		6	538	503		2	505	57
69,209	310	118	69,017	66,842	251	87	66,678	
147	11	32	108	135	7	17	145	58
1,100	12	41	1,129	1,181	13	33	1,201	59
633	72	14	570	1,068	87	6	567	60
465	9	97	553	553	10	111	634	61
1,014	53	29	990	970	69	19	999	62
689	100	21	907	607	120	16	537	63
328	28	83	333	329	39	93	343	64
780	19	73	533	801	18	63	546	65
3,707	317	49	3,439	3,679	280	25	3,428	66
3,047	572	33	2,508	3,027	538	25	2,514	67
174	3	30	201	199	4	49	227	68
486	12	256	730	453	14	238	657	69

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

No	County or Census Division and City, Town, etc.	Births, 1930			
		By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
	Ontario—Con.				
1	Cochrane	1,654	12	35	1,677
2	Timmins, t	506	24	14	496
3	Remaining parts	1,148	13	46	1,181
4	Dufferin	279	26	23	276
5	Dundas	288	16	12	284
6	Durham	456	15	30	471
7	Elgin	643	18	37	662
8	St. Thomas, c	322	71	12	263
9	Remaining parts	321	8	86	399
10	Essex	4,038	32	62	4,068
11	East Windsor, c	372	5	108	475
12	Windsor, c	1,510	242	335	1,603
13	Sandwich, t	198	2	116	310
14	Walkerville, t	661	464	32	229
15	Remaining parts	1,299	26	178	1,451
16	Frontenac	974	126	30	878
17	Kingston, c	315	3	99	411
18	Remaining parts	335	10	67	392
19	Glengarry	241	6	43	278
20	Grenville	1,074	37	58	1,095
21	Grey	313	77	11	247
22	Owen Sound, c	761	27	114	848
23	Remaining parts	352	8	46	390
24	Haldimand	147	2	7	152
25	Haliburton	336	12	108	432
26	Halton	1,310	51	51	1,310
27	Hastings	395	152	12	255
28	Belleville, c	142	5	25	162
29	Trenton, t	773	16	136	893
30	Remaining parts	805	34	31	802
31	Huron	461	20	30	471
32	Kenora	168	41	8	135
33	Kenora, t	203	16	59	336
34	Remaining parts	1,342	30	26	1,338
35	Kent	568	223	13	356
36	Chatham, c	777	13	218	982
37	Remaining parts	990	11	39	1,024
38	Lambton	450	67	15	398
39	Sarnia, c	546	11	91	626
40	Remaining parts	683	47	24	660
41	Lanark	185	41	7	151
42	Smith's Falls, t	498	23	34	509
43	Remaining parts	681	42	54	693
44	Leeds	270	74	9	205
45	Brockville, t	411	13	90	488
46	Remaining parts	193	9	38	222
47	Lennox	1,069	68	36	1,037
48	Lincoln	671	149	14	545
49	St. Catharines, c	398	13	107	492
50	Remaining parts	233	3	7	237
51	Manitoulin	2,010	154	51	1,907
52	Middlesex	1,481	329	35	1,187
53	London, c	529	21	212	720
54	Remaining parts	433	29	45	457
55	Muskoka	1,132	38	51	1,195
56	Nipissing	417	50	13	380
57	North Bay, c	765	20	70	815
58	Remaining parts	627	23	23	627
59	Norfolk	225	124	5	104
60	Simcoe, t	404	10	129	523
61	Remaining parts	533	21	43	555
62	Northumberland	148	34	5	119
63	Cobourg, t	385	19	64	436
64	Port Hope, t	1,238	43	81	1,277
65	Ontario	686	72	49	663
66	Oshawa, c	45	8	13	53
67	Whitby, t	507	27	79	559
68	Remaining parts	905	44	62	923
69	Oxford	272	81	15	206
70	Woodstock, c	139	41	8	106
71	Ingersoll, t	494	33	150	611
72	Remaining parts	592	25	42	609
73	Parry Sound	423	30	83	476
74	Peel	178	82	11	107
75	Brampton, t	245	5	129	369
76	Remaining parts				

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

Births, 1931				Births, 1932				No.
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	
1,771	19	38	1,790	1,791	17	46	1,820	1
531	45	6	459	519	45	17	491	2
1,240	16	77	1,301	1,272	13	70	1,329	3
243	10	21	254	254	19	10	254	4
275	-	27	295	264	3	11	272	5
433	29	32	436	419	34	27	409	6
48	14	29	663	650	17	23	656	7
300	73	9	236	300	93	6	216	8
346	3	52	427	350	5	95	440	9
3,555	28	54	3,584	3,113	30	51	3,126	10
302	3	77	379	287	6	-	332	11
1,242	155	336	1,393	1,499	146	224	1,177	12
168	4	113	277	132	6	73	199	13
643	481	23	185	459	308	14	165	14
1,203	113	163	1,253	1,136	12	129	1,253	15
657	105	37	585	1,010	96	24	938	16
645	190	14	469	658	187	8	479	17
312	2	107	417	332	4	111	459	18
359	4	66	421	362	3	62	421	19
232	5	40	267	228	1	49	276	20
1,097	60	48	1,079	1,030	57	53	1,035	21
233	94	9	290	280	67	8	237	22
759	33	102	826	743	48	103	708	23
351	8	52	395	329	10	55	374	24
145	2	3	146	166	-	3	167	25
319	-	105	415	331	15	103	419	26
1,350	165	43	1,367	1,278	43	39	1,275	27
424	155	11	280	365	121	15	250	28
115	3	14	136	140	6	29	160	29
841	16	126	951	774	13	95	856	30
732	30	20	728	709	42	20	683	31
465	11	29	483	455	19	20	456	32
102	43	4	145	180	57	7	130	33
275	3	65	355	278	12	63	329	34
1,279	13	32	1,289	1,257	21	32	1,268	35
456	170	8	283	461	184	10	287	36
814	5	198	1,004	790	8	193	981	37
1,051	16	41	1,076	924	17	33	940	38
464	69	11	406	398	62	12	348	39
557	13	94	670	526	17	83	592	40
645	41	20	624	619	34	25	630	41
160	37	7	130	128	33	8	103	42
495	24	30	504	491	14	14	507	43
608	49	53	614	637	48	59	648	44
247	58	8	197	242	79	7	170	45
361	19	72	417	395	7	90	478	46
177	5	37	209	169	9	30	190	47
999	65	57	991	935	5	49	931	48
627	121	29	535	591	141	17	467	49
372	19	103	455	344	12	132	464	50
275	1	8	282	359	2	6	368	51
1,002	134	48	1,906	1,953	109	54	1,898	52
1,452	300	39	1,172	1,397	277	31	1,151	53
540	9	201	734	556	17	208	747	54
578	7	47	616	402	5	56	450	55
1,206	37	49	1,209	1,161	32	46	1,175	56
408	45	15	378	398	15	16	361	57
798	22	55	831	763	18	69	814	58
621	30	24	615	594	36	36	654	59
218	129	1	90	257	149	-	115	60
403	12	134	525	397	12	154	539	61
532	14	33	551	523	18	53	557	62
134	26	4	112	135	36	8	108	63
398	12	63	439	388	7	74	449	64
1,112	43	87	1,156	1,000	11	38	1,049	65
607	68	38	577	510	78	32	470	66
39	8	19	47	38	3	22	55	67
466	23	89	532	446	19	104	521	68
510	55	41	796	511	37	47	521	69
250	89	5	175	242	79	11	174	70
116	48	2	70	125	26	3	92	71
435	33	149	551	444	30	141	552	72
615	25	35	628	676	29	43	691	73
422	28	88	495	410	23	96	483	74
159	75	12	96	155	71	5	89	75
263	4	140	399	255	2	141	394	76

TABLE 15.   Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

No.	County or Census Division and City, Town, etc.	Births, 1930			
		By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
	Ontario—Con.				
1	Perth— Con.	904	35	38	907
2	Stratford, c.	406	72	16	350
3	Remaining parts.	498	19	78	557
4	Peterborough.	894	27	34	901
5	Peterborough, c.	639	172	9	476
6	Remaining parts.	255	4	174	425
7	Prescott.	716	27	12	695
8	Hawkesbury, t.	190	16	6	180
9	Remaining parts.	526	20	15	515
10	Prince Edward	304	12	27	319
11	Rainy River	367	2	17	382
12	Fort Frances, t.	171	17	7	161
13	Remaining parts.	196	5	30	221
14	Renfrew.	1,275	50	50	1,275
15	Pembroke, t.	328	91	10	247
16	Renfrew, t.	142	45	6	103
17	Remaining parts.	805	22	142	925
18	Russell	517	12	14	519
19	Simcoe.	1,570	104	68	1,534
20	Barrie, t.	201	57	9	153
21	Collingwood, t.	144	39	4	109
22	Midland, t.	181	44	9	146
23	Orillia.	250	90	10	170
24	Remaining parts.	794	31	193	956
25	Stormont.	890	73	23	840
26	Cornwall, t.	482	114	18	386
27	Remaining parts.	408	9	55	454
28	Sudbury.	1,752	65	60	1,707
29	Sudbury, c.	720	110	25	635
30	Remaining parts.	1,032	29	129	1,132
31	Thunder Bay.	1,376	24	33	1,385
32	Fort William, c.	523	98	28	553
33	Port Arthur, c.	564	142	9	431
34	Remaining parts.	189	1	213	401
35	Timiskaming.	912	23	32	921
36	Victoria.	462	24	24	462
37	Lindsay, t.	208	58	6	156
38	Remaining parts.	254	7	59	306
39	Waterloo.	1,896	51	37	1,882
40	Galt, t.	311	87	18	242
41	Kitchener, c.	829	123	17	723
42	Preston, t.	93	4	29	118
43	Waterloo, t.	121	5	49	165
44	Remaining parts.	542	13	105	634
45	Welland.	1,688	29	97	1,756
46	Niagara Falls, c.	438	44	29	423
47	Welland, c.	298	60	12	250
48	Port Colborne, t.	99	5	14	108
49	Port Colborne, t.	107	7	20	215
50	Thorold, t.	92	6	31	117
51	Remaining parts.	564	18	97	643
52	Wellington.	1,184	72	51	1,162
53	Guelph, c.	409	74	146	481
54	Remaining parts.	775	177	83	681
55	Wentworth.	3,811	149	77	3,748
56	Hamilton, c.	3,395	268	77	3,204
57	Dundas, t.	85	12	24	97
58	Remaining parts.	331	18	134	447
59	York.	17,506	402	230	17,334
60	Toronto, c.	13,559	1,821	708	12,446
61	Mimico, t.	162	57	41	146
62	New Toronto, t.	157	18	48	187
63	Remaining parts.	3,628	552	1,379	4,455
	Manitoba.	14,411	209	55	14,257
64	Division No. 1.	620	9	93	704
65	Division No. 2.	1,039	21	123	1,141
66	Division No. 3.	572	2	52	622
67	Division No. 4.	347	5	25	367
68	Division No. 5.	678	19	330	989
69	Transcona, t.	63	3	47	107
70	Remaining parts.	615	17	284	882
71	Division No. 6.	6,335	1,283	44	5,096
72	Portage la Prairie, t.	190	91	10	115
73	St. Boniface, c.	980	697	65	348

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

Births, 1931				Births, 1932				No.
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	
925	38	41	928	836	25	30	841	1
392	68	12	336	330	56	7	281	2
533	21	80	592	506	15	69	560	3
801	28	28	861	862	23	25	864	4
612	175	21	458	592	161	21	452	5
249	6	160	403	270	7	149	412	6
701	21	6	686	658	21	11	648	7
173	15	-	158	164	14	2	152	8
528	12	12	528	494	11	13	496	9
299	12	24	311	287	7	19	209	10
382	6	12	388	382	2	10	390	11
151	20	7	138	140	26	2	122	12
231	4	23	250	236	3	33	268	13
1,164	42	37	1,159	1,196	45	41	1,192	14
272	57	10	225	313	63	0	204	15
174	54	5	125	102	51	5	116	16
718	21	112	809	721	15	116	822	17
519	10	23	532	520	3	20	542	18
1,570	118	62	1,519	1,559	106	49	1,502	19
180	88	11	139	207	83	7	131	20
125	38	8	95	127	31	2	98	21
224	61	7	170	177	59	6	123	22
228	84	12	156	268	98	3	170	23
512	30	117	591	780	20	214	974	24
907	74	16	849	862	60	13	815	25
460	118	12	354	452	121	10	341	26
447	11	59	495	410	1	65	474	27
1,822	39	58	1,841	1,796	37	59	1,818	28
830	116	34	748	796	142	19	673	29
902	16	117	1,093	1,000	16	161	1,145	30
1,357	24	24	1,557	1,351	22	19	1,348	31
527	95	23	555	593	85	29	537	32
504	151	8	361	534	140	0	403	33
196	3	218	411	224	0	190	408	34
957	18	30	069	1,086	33	25	1,078	35
418	14	21	425	450	23	15	442	36
180	51	5	134	201	82	7	126	37
238	2		291	249		70	316	38
1,906	42	24	1,888	1,719	48	37	1,708	39
321	79	9	251	309	89	16	236	40
851	143	11	719	729	134	13	608	41
95	8	25	112	77	3	38	112	42
110	1	59	168	90	-	54	144	43
529	4	113	638	514	8	102	608	44
1,677	28	79	1,722	1,572	32	69	1,561	45
463	51	25	437	402	35	17	384	46
303	72	13	244	275	62	8	221	47
83	15	10	104	100	17	3	95	48
178	8	22	192	134	1	17	160	49
73	9	24	90	72	6	24	90	50
546	11	120	650	520	10	111	621	51
1,136	60	45	1,121	1,073	63	41	1,051	52
363	74	141	430	366	69	122	419	53
773	158	78	691	707	148	73	632	54
3,708	124	78	3,562	3,444	143	60	3,361	55
3,329	245	64	3,139	3,111	273	46	2,884	56
83	15	9	87	60	11	29	78	57
305	9	140	436	273	5	131	399	58
15,477	493	192	16,174	15,702	431	198	15,459	59
12,677	1,850	594	11,421	12,095	1,714	573	10,954	60
164	61	61	164	145	55	35	122	61
129	17	50	162	104	6	69	167	62
3,565	454	1,376	4,427	3,358	450	1,318	4,226	63
14,376	**165**	**90**	**14,978**	**14,124**	**139**	**43**	**14,028**	
651	4	108	755	667	12	94	749	64
1,011	29	104	1,116	1,064	33	146	1,177	65
823	6	67	584	493	3	64	554	66
316	7	23	334	349	10	22	361	67
665	16	325	974	601	18	362	945	68
60	-	49	109	48	-	58	101	69
995	16	276	865	856	17	305	844	70
6,198	1,236	61	5,023	5,931	1,193	38	4,776	71
295	72	2	135	135	58	5	103	72
1,015	722	57	350	1,147	877	36	306	73

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

No	County or Census Division and City, Town, etc.	Births, 1930			
		By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
	Manitoba—Con.				
	Division No. 6—Con.				
1	Winnipeg, c.	4,629	1,345	396	3,680
2	Remaining parts	528	34	461	955
3	Division No. 7	631	55	63	639
4	Brandon, c.	374	89	16	304
5	Remaining parts	257	4	52	335
6	Division No. 8	335	24	50	361
7	Division No. 9	500	43	358	315
8	Division No. 10	357	28	33	362
9	Division No. 11	561	12	36	588
10	Division No. 12	479	8	85	556
11	Division No. 13	555	58	20	527
12	Division No. 14	585	14	42	613
13	Division No. 15	243	9	20	254
14	Division No. 16	566	9	67	624
	Saskatchewan	22,951	93	357	23,215
15	Division No. 1	888	39	56	905
16	Division No. 2	937	44	101	994
17	Weyburn, c.	137	62	2	77
18	Remaining parts	800	30	147	917
19	Division No. 3	1,108	44	107	1,171
20	Division No. 4	677	57	61	681
21	Division No. 5	1,255	32	71	1,204
22	Division No. 6	2,676	220	87	2,543
23	Regina, c.	1,664	353	41	1,353
24	Remaining parts	1,012	41	219	1,190
25	Division No. 7	1,417	129	92	1,380
26	Moose Jaw, c.	596	199	14	411
27	Remaining parts	821	19	141	1,060
28	Division No. 8	1,138	56	146	1,228
29	Swift Current, c.	208	79	5	132
30	Remaining parts	932	28	192	1,096
31	Division No. 9	1,479	36	34	1,473
32	Yorkton, c.	215	98	6	123
33	Remaining parts	1,260	16	106	1,350
34	Division No. 10	1,057	46	60	1,071
35	Division No. 11	2,122	243	94	1,973
36	Saskatoon, c.	1,235	315	37	957
37	Remaining parts	887	28	157	1,016
38	Division No. 12	763	33	139	869
39	Division No. 13	1,097	62	85	1,120
40	Division No. 14	1,080	58	70	1,092
41	Division No. 15	2,309	77	113	2,345
42	Prince Albert, c.	388	162	6	232
43	Remaining parts	1,921	27	219	2,113
44	Division No. 16	1,249	95	80	1,234
45	North Battleford, c.	256	113	4	147
46	Remaining parts	993	18	112	1,087
47	Division No. 17	633	21	61	673
48	Division No. 18	170	4	3	169
	Alberta	17,649	134	117	17,632
49	Division No. 1	724	97	90	717
50	Medicine Hat, c.	462	261	8	209
51	Remaining parts	262	7	253	509
52	Division No. 2	1,399	199	20	1,420
53	Lethbridge, c.	581	260	7	328
54	Remaining parts	1,018	42	116	1,092
55	Division No. 3	330	50	83	354
56	Division No. 4	505	21	228	712
57	Division No. 5	437	13	160	584
58	Division No. 6	3,278	331	93	3,040
59	Calgary, c.	2,064	418	35	1,681
60	Remaining parts	1,214	148	289	1,359
61	Division No. 7	857	56	82	883
62	Division No. 8	1,321	84	137	1,374
63	Division No. 9	395	20	62	437
64	Division No. 10	1,586	50	119	1,655
65	Division No. 11	3,305	427	60	2,938
66	Edmonton, c.	2,391	721	24	1,694
67	Remaining parts	914	20	350	1,244
68	Division No. 12	261	7	57	311

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

Births, 1931				Births, 1932				No.
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	
4,450	1,243	411	3,618	4,087	1,170	444	3,361	1
628	42	434	920	511	26	521	1,006	2
631	60	78	649	581	47	58	592	3
369	100	31	300	314	82	12	244	4
262	22	109	349	267	6	87	348	5
352	25	37	361	312	25	45	332	6
472	45	334	761	501	52	319	768	7
372	20	32	384	359	24	32	367	8
625	16	35	644	582	21	39	600	9
530	1	35	614	491	4	90	577	10
599	48	18	566	508	43	17	572	11
571	16	38	593	548	6	33	575	12
231	10	11	232	257	21	7	243	13
732	7	63	788	790	15	65	840	14
21,331	94	205	21,442	29,834	87	185	29,912	
898	24	47	921	813	14	38	837	15
913	32	73	904	820	38	55	886	16
135	48	8	95	110	47	3	72	17
778	20	107	859	723	30	91	784	18
1,023	30	75	1,068	989	30	73	1,032	19
602	34	58	626	547	32	39	554	20
1,140	28	55	1,167	1,188	24	54	1,219	21
2,537	169	51	2,419	2,201	163	48	2,086	22
1,511	293	19	1,237	1,262	262	23	1,023	23
1,026	25	181	1,182	939	26	150	1,063	24
1,319	90	64	1,293	1,246	75	40	1,217	25
512	162	11	361	492	158	9	343	26
807	8	133	932	754	5	125	874	27
1,105	51	114	1,168	1,020	42	93	1,071	28
171	68	4	107	144	59	2	87	29
931	28	155	1,058	870	31	139	984	30
1,434	28	35	1,431	1,493	24	35	1,504	31
181	82	6	105	108	71	14	111	32
1,243	15	98	1,326	1,335	12	92	1,393	33
992	49	52	995	993	21	56	1,028	34
1,923	236	47	1,744	1,736	176	56	1,616	35
1,144	275	18	887	1,009	236	16	789	36
779	18	96	857	727	17	117	827	37
812	41	131	902	704	25	108	787	38
1,044	59	66	1,051	1,023	69	52	1,036	39
1,236	49	73	1,260	1,341	42	64	1,363	40
2,214	75	109	2,305	2,357	76	100	2,381	41
350	154	12	217	359	142	10	222	42
1,915	33	206	2,088	1,998	38	194	2,154	43
1,194	79	63	1,177	1,316	100	69	1,285	44
227	113	7	121	239	132	7	114	45
967	5	94	1,056	1,077	19	113	1,171	46
698	29	83	752	767	49	17	784	47
204	1	14	217	240	1	17	256	48
17,252	156	101	17,197	16,990	121	97	16,966	
717	103	82	696	640	72	73	641	49
401	234	5	172	358	183	4	179	50
316	12	220	524	282	7	187	402	51
1,496	177	34	1,383	1,453	164	32	1,331	52
572	260	5	317	526	359	9	276	53
923	36	143	1,030	927	29	157	1,055	54
310	64	83	329	305	52	61	334	55
414	12	168	570	429	17	131	536	56
452	83	170	539	320	11	150	459	57
2,904	275	92	2,720	2,822	243	91	2,670	58
1,883	332	22	1,573	1,776	257	30	1,469	59
1,081	124	250	1,207	1,096	122	237	1,201	60
808	61	70	817	835	32	69	872	61
1,276	93	113	1,296	1,303	125	93	1,271	62
403	18	87	472	405	7	114	512	63
1,478	42	100	1,536	1,398	53	119	1,464	64
3,359	409	37	2,987	3,235	465	45	2,815	65
2,400	728	20	1,692	2,320	737	19	1,582	66
950	21	357	1,295	915	23	371	1,263	67
292	6	54	340	362	10	68	420	68

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

No.	County or Census Division and City, Town, etc.	Births, 1930			
		By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother
1	**Alberta—Con.**				
1	Division No. 13................................	797	33	40	804
2	Division No. 14................................	979	28	134	1,085
3	Division No. 15................................	373	18	30	385
4	Division No. 16................................	677	22	28	683
5	Division No. 17................................	225	6	31	250
	British Columbia¹	10,867	60	44	10,851
6	Division No. 1................................	481	8	17	490
7	Division No. 2................................	664	12	26	678
8	Nelson, c................................	133	40	9	102
9	Trail, c................................	203	11	7	209
10	Remaining parts................................	318	8	57	367
11	Division No. 3................................	717	24	24	717
12	Division No. 4................................	5,789	178	55	5,666
13	New Westminster, c................................	555	238	14	331
14	North Vancouver, c................................	195	64	17	148
15	Vancouver, c................................	4,003	446	74	3,631
16	Remaining parts................................	1,036	37	557	1,556
17	Division No. 5 A................................	1,632	53	48	1,627
18	Nanaimo, c................................	206	53	11	164
19	Victoria, c................................	734	227	11	518
20	Remaining parts................................	692	23	276	945
21	Division No. 5 B................................	91	5	26	112
22	Division No. 6 A................................	440	31	25	434
23	Kamloops, c................................	201	91	5	115
24	Remaining parts................................	239	13	93	319
25	Division No. 6 B................................	77	1	26	102
26	Division No. 7................................	189	8	28	209
27	Division No. 8 A................................	202	13	22	211
28	Division No. 8 B................................	147	4	15	158
29	Division No. 9 A................................	7	–	–	7
30	Division No. 9 B................................	15	–	1	16
31	Division No. 9 C................................	266	16	13	268
32	Prince Rupert, c................................	143	31	2	114
33	Remaining parts................................	123	5	36	154
34	Division No. 9 D................................	29	–	3	32
35	Division No. 10 A................................	–	–	–	–
36	Division No. 10 B................................	5	–	–	5
37	Division No. 10 C................................	116	5	8	119

TABLE 15. Live births by place of occurrence and place of residence of mother, for cities and towns of 5,000 and over, and for the remaining parts of counties or census divisions, Canada, 1930-1932—Con.

	Births, 1931				Births, 1932			No.
By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	By Place of Occurrence	To Non-Resident Mothers	Occurring Elsewhere to Mothers Who Are Residents	By Residence of Mother	
871	35	36	872	828	45	47	830	1
1,115	27	140	1,228	1,150	23	148	1,275	2
419	37	27	409	496	27	34	503	3
742	21	54	775	806	19	31	818	4
194	5	9	198	203	10	28	221	5
10,464	47	74	10,431	10,214	38	50	10,226	
431	11	24	444	394	6	23	411	6
698	14	27	711	712	15	20	717	7
191	70	9	130	151	50	4	105	8
217	16	4	205	240	7	6	239	9
290	8	94	376	321	12	64	373	10
720	20	24	724	741	22	21	740	11
5,502	162	49	5,359	5,181	157	34	5,058	12
588	255	30	363	565	268	25	322	13
150	50	16	116	195	68	7	134	14
3,720	407	45	3,358	3,450	404	50	3,096	15
1,634	38	546	1,542	971	35	570	1,506	16
1,447	53	55	1,451	1,472	50	49	1,471	17
154	38	7	123	154	53	7	108	18
688	201	7	494	700	257	17	460	19
605	21	250	834	618	33	318	903	20
80	12	18	92	101	4	23	120	21
429	37	37	429	416	25	27	418	22
215	105	6	116	210	113	6	103	23
214	19	118	313	200	7	110	315	24
64	–	39	103	70	–	44	114	25
184	9	40	215	212	7	31	236	26
193	15	40	218	249	21	20	248	27
176	4	2	174	201	4	17	214	28
5	–	1	6	4	–	–	4	29
17	–	–	17	18	–	2	20	30
286	13	11	284	233	13	12	232	31
140	22	2	120	112	31	2	83	32
146	4	22	164	121	6	34	149	33
52	–	4	56	41	–	4	45	34
–	–	–	–	1	–	–	1	35
2	–	–	2	1	–	1	1	36
117	9	12	116	170	4	10	176	37

TABLE 16.—Crude birth rate, population and land area in square miles, for counties and census divisions, Canada, 1931

Counties and Census Divisions in Birth Rate Class	Crude Birth Rate 1930-32	Population, 1931	Land Area (square miles)
Under 15		495,342	95,209
Division No. 4, B.C.	14·1	370,858	9,764
Division No. 5A, B.C.	13·3	114,538	5,374
Division No. 9A, B.C.	7·9	716	20,668
Division No. 10A, B.C.	3·0	100	38,016
Division No. 10B, B.C.	11·8	228	21,387
15-19		3,065,518	252,219
Kings, P.E.I.	17·6	19,147	641
Annapolis, N.S.	19·5	16,297	1,285
Antigonish, N.S.	17·0	10,073	541
Inverness, N.S.	19·3	21,055	1,409
Lunenburg, N.S.	18·9	31,674	1,169
Picton, N.S.	19·6	39,018	1,124
Victoria, N.S.	16·9	5,009	1,105
Kings, N.S.	18·3	19,807	1,386
Queens, N.S.	19·5	11,219	1,385
Brome, Que.	16·7	12,433	488
Chambly, Que.	18·7	26,801	138
Brant, Ont.	18·3	53,476	421
Bruce, Ont.	19·4	42,280	1,650
Dufferin, Ont.	17·6	14,892	557
Dundas, Ont.	17·6	16,098	384
Durham, Ont.	17·0	25,782	620
Elgin, Ont.	15·2	45,436	720
Frontenac, Ont.	19·7	45,756	1,599
Grenville, Ont.	16·8	16,227	463
Grey, Ont.	18·5	57,690	1,708
Haldimand, Ont.	18·0	21,428	488
Halton, Ont.	18·4	26,558	363
Huron, Ont.	16·3	45,150	1,265
Lambton, Ont.	18·5	54,674	1,124
Lanark, Ont.	19·2	32,856	1,138
Leeds, Ont.	18·5	33,157	900
Lennox and	17·2	12,004	297
Lincoln, Ont.	18·2	54,199	332
Middlesex, Ont.	16·1	118,241	1,240
Northumberland, Ont.	17·6	31,452	734
Ontario, Ont.	19·5	59,667	853
Oxford, Ont.	17·7	47,823	763
Peel, Ont.	17·2	28,156	466
Perth, Ont.	17·4	51,392	840
Peterborough, Ont.	19·9	43,958	1,415
Prince Edward, Ont.	18·6	16,693	390
Simcoe, Ont.	18·1	83,667	1,803
Victoria, Ont.	17·1	25,844	1,348
Wellington, Ont.	16·1	58,164	1,019
Wentworth, Ont.	18·0	190,019	458
York, Ont.	19·0	856,955	682
Division No. 4, Man.	19·4	18,253	2,466
Division No. 8, Man.	17·5	283,826	2,456
Division No. 9, Man.	17·0	36,912	2,578
Division No. 17, Man.	17·2	19,846	2,160
Division No. 8, Man.	17·2	45,414	1,217
Division No. 9, Sask.	19·8	26,651	7,681
Division No. 9, Alta.	19·3	24,602	14,415
Division No. 3, B.C.	19·9	22,596	15,984
Division No. 2, B.C.	17·4	40,455	13,343
Division No. 3, B.C.	17·9	40,525	10,729
Division No. 5B, B.C.	19·4	6,885	7,532
Division No. 8A, B.C.	17·1	25,090	16,357
Division No. 7, B.C.	17·4	12,658	22,167
Division No. 11, B.C.	19·4	11,626	39,421
Division No. 8B, B.C.	18·4	9,908	32,364
Division No. 9C, B.C.	16·6	15,676	24,034
20-24		4,120,949	518,481
Queens, P.E.I.	20·0	37,391	765
Colchester, N.S.	22·8	25,051	1,451
Cumberland, N.S.	22·3	36,366	1,683
Digby, N.S.	22·4	18,353	970
Guysborough, N.S.	24·3	15,443	1,611
Halifax, N.S.	20·5	100,264	2,063
Hants, N.S.	24·9	19,393	1,229
Kings, N.S.	20·2	24,357	842
Queens, N.S.	20·5	10,012	953
Richmond, N.S.	20·8	11,096	489
Shelburne, N.S.	22·7	12,455	979

Counties and Census Divisions in Birth Rate Class	Crude Birth Rate 1930-32	Population, 1931	Land Area (square miles)
20-24—Con.			
Yarmouth, N.S.	20·6	20,939	838
Albert, N.B.	21·6	7,679	687
Carleton, N.B.	20·6	20,796	1,311
Charlotte, N.B.	20·5	21,337	1,254
St. John, N.B.	21·0	61,613	616
Sunbury, N.B.	21·4	8,999	1,088
Westmorland, N.B.	21·9	57,506	1,442
York, N.B.	21·3	32,454	3,576
Argenteuil, Que.	21·7	18,976	783
Beauharnois, Que.	21·8	25,163	147
Châteauguay, Que.	23·2	13,121	265
Compton, Que.	24·6	27,017	933
Huntingdon, Que.	21·2	12,348	361
Iberville, Que.	24·9	9,402	108
Missisquoi, Que.	23·2	19,636	375
Montreal and Jesus Islands, Que.	23·2	1,020,018	294
Rouville, Que.	24·8	17,776	243
Sherbrooke, Que.	24·8	37,386	238
St-Hyacinthe, Que.	24·5	25,854	278
Vaudreuil, Que.	23·1	12,016	201
Addington, Ont.	22·8	6,370	873
Algoma, Ont.	24·7	46,444	19,320
Carleton, Ont.	20·1	170,040	947
Cochrane, Ont.	22·5	169,730	707
Glengarry, Ont.	22·0	18,566	478
Hastings, Ont.	22·4	58,848	2,323
Kenora, Ont.	21·4	21,946	18,350
Kent, Ont.	20·6	62,885	918
Manitoulin, Ont.	24·3	10,734	1,588
Muskoka, Ont.	21·0	20,935	1,585
Norfolk, Ont.	24·2	31,359	634
Parry Sound, Ont.	24·8	25,000	4,336
Rainy River, Ont.	22·3	17,350	7,276
Renfrew, Ont.	23·1	82,227	3,009
Thunder Bay, Ont.	20·9	65,118	52,471
Waterloo, Ont.	20·3	89,852	516
Welland, Ont.	20·3	82,771	387
Division No. 3, Man.	21·9	26,753	2,577
Division No. 7, Man.	21·0	46,228	5,256
Division No. 10, Man.	20·7	17,916	2,377
Division No. 11, Man.	20·5	28,100	2,914
Division No. 12, Man.	23·9	24,364	3,240
Division No. 13, Man.	22·9	24,263	3,324
Division No. 14, Man.	22·9	25,078	3,636
Division No. 15, Man.	24·3	10,008	2,304
Division No. 16, Man.	24·5	30,669	175,637
Division No. 5, Sask.	21·4	41,544	5,944
Division No. 8, Sask.	21·8	42,351	6,588
Division No. 10, Sask.	23·3	46,881	7,646
Division No. 12, Sask.	23·0	28,129	7,579
Division No. 2, Sask.	22·7	53,048	5,760
Division No. 6, Sask.	21·4	109,906	6,787
Division No. 8, Sask.	20·5	63,230	7,471
Division No. 13, Sask.	23·4	49,361	9,264
Division No. 14, Sask.	24·3	60,639	9,001
Division No. 9, Sask.	24·6	41,890	4,960
Division No. 4, Alta.	20·2	87,976	5,679
Division No. 11, Alta.	21·0	40,612	5,982
Division No. 2, Alta.	25·7	28,849	7,523
Division No. 1, Alta.	23·9	57,195	6,342
Division No. 8, Alta.	22·5	15,066	7,018
Division No. 6, Alta.	20·8	29,667	6,119
Division No. 10, Alta.	20·1	140,624	10,595
Division No. 12, Alta.	22·5	38,106	6,684
Division No. 7, Alta.	21·5	61,016	6,510
Division No. 5, Alta.	23·0	126,832	4,753
Division No. 6B, B.C.	21·2	4,095	15,063
Division No. 10C, B.C.	20·5	6,685	23,130
25-29		949,242	162,671
Prince, P.E.I.	25·5	31,500	778
Cape Breton, N.S.	26·5	92,419	972
Northumberland, N.B.	27·9	31,744	4,711
Victoria, N.B.	29·2	14,007	2,092
Berthier, Que.	27·4	19,506	1,816
Deux-Montagnes, Que.	26·4	14,284	279
Laprairie, Que.	26·1	13,491	170
L'Assomption, Que.	29·2	15,323	247
Lévis, Que.	27·7	35,656	272

For footnotes see those of corresponding number on pages 165, 166 and 169.

TABLE 16.   Crude birth rate, population and land area in square miles, for counties and census divisions, Canada, 1931—Con.

Counties and Census Divisions[1] in Birth Rate Class	Crude Birth Rate, 1930-32	Population, 1931	Land Area (square miles)	Counties and Census Divisions[1] in Birth Rate Class	Crude Birth Rate, 1930-32	Population, 1931	Land Area (square miles)
25-29—con.				**30-34—Con.**			
Montcalm, Que.	29·3	13,865	3,894	Montmorency, Que.	30·2	16,955	2,137
Napierville, Que.	27·0	7,600	149	Nicolet, Que.	30·4	28,678	826
Pontiac, Que.	25·7	21,241	9,560	Papineau, Que.	30·7	29,246	1,581
Richelieu, Que.	27·7	21,483	221	Portneuf, Que.	32·7	35,890	1,440
Soulanges, Que.	25·3	9,099	136	Quebec, Que.	31·6	170,215	2,745
Stanstead, Que.	25·3	25,118	432	Richmond, Que.	30·9	24,956	544
St-Jean, Que.	26·9	17,649	205	Shefford, Que.	30·6	28,262	567
Verchères, Que.	28·1	12,603	199	Terrebonne, Que.	30·8	38,611	782
Haliburton, Ont.	25·8	5,997	1,486	Wolfe, Que.	34·2	16,911	680
Nipissing, Ont.	29·0	41,207	7,569	Yamaska, Que.	30·8	10,820	365
Prescott, Ont.	27·5	24,596	494	Cochrane, Ont.	30·4	58,550	52,237
Russell, Ont.	28·7	18,487	407	Sudbury, Ont.	31·1	58,251	18,058
Stormont, Ont.	24·7	22,524	412	Division No. 1, Man.	32·5	22,817	4,281
Temiskaming, Ont.	26·7	37,043	5,896	Division No. 18, Sask.	33·8	6,339	114,533
Division No. 2, Man.	29·5	38,810	2,320	Division No. 13, Alta.	33·5	24,939	8,103
Division No. 13, Man.	25·1	42,432	6,848	Division No. 14, Alta.	30·3	39,508	8,721
Division No. 14, Man.	26·8	46,222	13,419	Division No. 15, Alta.	31·6	13,664	22,845
Division No. 15, Man.	28·0	83,097	8,082				
Division No. 16, Man.	25·8	48,736	8,912	**35-39.**		505,671	290,384
Division No. 17, Man.	26·9	27,315	6,913	Gloucester, N.B.	39·3	23,669	76,724
Division No. 10, Alta.	26·7	58,049	6,180	Madawaska, N.B.	37·1	44,702	1,128
Division No. 12, Alta.	25·8	13,315	13,088	Restigouche, N.B.	35·8	22,440	2,273
Division No. 16, Alta.	27·2	27,045	11,100	Abitibi, Que.	38·7	27,994	842
Division No. 9B, B.C.	27·7	638	39,456	Beauce, Que.	37·7	25,681	1,370
Division No. 9D, B.C.	26·4	1,666	3,970	Charlevoix, Que.	38·0	45,617	4,551
				Dorchester, Que.	38·3		
30-34.		1,065,507	267,814	Frontenac, Que.	37·4	20,140	2,392
Kent, N.B.	31·0	23,478	1,749	Gaspé, Que.	35·1	33,151	2,089
Arthabaska, Que.	32·0	27,159	666	Îles-de-la-Madeleine, Que.[2]	38·2	19,577	87,680
Bagot, Que.	30·4	16,914	346	Labelle, Que.	35·8	69,695	1,820
Bellechasse, Que.	33·8	22,006	653	Rimouski, Que.	39·2	20,609	8,977
Beauharnois, Que.	33·9	32,432	3,464	Saguenay, Que.[4]	35·9	50,274	1,806
Champlain, Que.	34·8	59,933	8,784	St-Maurice, Que.	37·4	41,914	1,570
Drummond, Que.	32·5	26,179	532	Temiskaming, Que.	37·8	24,527	1,273
Hull, Que.	31·9	63,870	2,432	Témiscouata, Que.	35·8	29,859	3,270
Joliette, Que.	31·7	27,585	2,505	Division No. 17, Alta.	38·5	5,788	101,318
Kamouraska, Que.	32·4	23,584	1,688				
L'Islet, Que.	32·9	19,404	773	**40 and over.**		151,249	44,886
Lotbinière, Que.	33·1	23,034	728	Chicoutimi, Que.	44·1	55,724	17,800
Maskinongé, Que.	32·0	16,039	2,378	Lac-St-Jean, Que.	45·1	50,253	23,590
Mégantic, Que.	34·1	35,492	780	Matane, Que.	41·5	45,272	3,496
Montmagny, Que.	32·0	20,239	630				

TABLE 17.　Correlation of standardized birth rates with percentage French and with percentage Roman Catholic for (1) a sample of the counties or census divisions exclusive of cities and towns of 5,000 and over, (2) cities and towns of 5,000-10,000, (3) cities and towns of 10,000-30,000 and (4) cities of 30,000 and over

County or Census Division	Standardized Birth Rate, 1930-32	P.C. French, 1931	P.C. Roman Catholic, 1931	City or Town	Standardized Birth Rate, 1930-32	P.C. French, 1931	P.C. Roman Catholic, 1931
SAMPLE OF COUNTIES AND CENSUS DIVISIONS EXCLUSIVE OF CITIES AND TOWNS OF 5,000 AND OVER				**CITIES AND TOWNS OF 5,000-10,000**			
Chicoutimi, remaining parts, Que.	48·8	94·3	97·5	Jonquière, Que.	49·7	97·0	99·4
Restigouche, remaining parts, N.B.	44·0	68·7	81·0	La Tuque, Que.	41·2	90·6	94·7
Bellechasse, Que.	41·5	99·6	100·0	New Waterford, N.S.	40·5	12·8	71·7
Division No. 1, Man.	39·7	21·2	46·5	Cap-de-la-Madeleine, Que.	39·5	96·6	98·9
Kamouraska, Que.	39·4	99·4	99·9	Rimouski, Que.	38·7	96·8	99·6
Rimouski, remaining parts, Que.	38·3	97·4	99·9	Drummondville, Que.	37·5	86·2	90·1
Arthabaska, remaining parts, Que.	36·9	98·5	99·5	Edmundston, N.B.	35·9	82·4	88·4
Division No. 15, Alta.	36·8	27·4	55·4	Eastview, Ont.	34·4	71·0	82·0
Russell, Ont.	35·8	79·2	82·0	Hawkesbury, Ont.	34·4	84·8	88·2
Portneuf, Que.	34·8	96·0	98·7	Sydney Mines, N.S.	34·3	3·1	48·2
Yamaska, Que.	34·4	98·2	99·7	Grand Mère, Que.	34·2	90·7	92·9
Maskinongé, Que.	34·1	98·8	99·7	Magog, Que.	32·1	83·6	85·4
Montcalm, Que.	33·2	92·7	96·5	St-Jérôme, Que.	30·9	97·3	98·7
Division No. 17, Sask.	31·9	12·6	26·6	Springhill, N.S.	30·7	6·4	16·1
Napierville, Que.	31·6	96·6	98·1	Victoriaville, Que.	30·7	97·4	99·5
Prescott, remaining parts, Ont.	31·5	77·5	84·1	North Sydney, N.S.	28·4	4·3	29·4
L'Assomption, Que.	31·4	96·4	97·7	Campbellton, N.B.	28·3	39·1	52·6
Terrebonne, remaining parts, Que.	31·1	91·2	93·4	Trail, B.C.	27·1	1·4	30·1
Drummond, remaining parts, Que.	30·9	92·2	93·8	Lauzon, Que.	26·6	97·0	99·7
Division No. 11, remaining parts, Alta.	30·7	10·0	29·6	Port Colborne, Ont.	26·6	5·1	41·0
Parry Sound, Ont.	29·5	2·6	13·7	Stellarton, N.S.	26·1	3·7	28·7
Division No. 13, Sask.	29·2	2·6	31·7	Rivière-du-Loup, Que.	25·9	97·5	99·1
Colchester, remaining parts, N.S.	29·1	2·7	3·9	Trenton, N.S.	25·5	6·1	16·9
Division No. 9, remaining parts, Sask.	28·6	0·6	34·0	Fort Frances, Ont.	24·2	13·1	34·9
Shelburne, N.S.	27·8	1·6	1·5	Longueuil, Que.	23·5	74·8	81·3
St-Jean, remaining parts, Que.	27·7	89·1	90·4	Pembroke, Ont.	22·9	26·1	46·2
Halifax, remaining parts, N.S.	27·6	8·8	23·8	St-Laurent, Que.	22·1	78·9	85·2
Division No. 10C, B.C.	27·2	5·3	22·2	Yorkton, Sask.	20·9	0·8	18·9
Division No. 13, Man.	26·9	9·4	50·9	Midland, Ont.	20·8	18·9	28·4
Manitoulin, Ont.	26·6	3·7	55·8	New Toronto, Ont.	20·7	4·3	23·0
Division No. 3, Alta.	26·6	2·7	16·3	Renfrew, Ont.	20·7	15·8	48·5
Division No. 7, Alta.	26·4	4·6	18·8	Prince Albert, Sask.	20·4	7·9	24·1
Queens, remaining parts, P.E.I.	26·4	7·7	31·9	Swift Current, Sask.	20·2	2·0	10·9
Thunder Bay, remaining parts, Ont.	26·4	6·4	31·4	Thorold, Ont.	20·1	4·9	40·9
Division No. 8A, B.C.	26·0	4·9	24·8	Kamloops, B.C.	19·9	3·1	16·3
Division No. 8, Sask.	25·7	2·4	23·8	Nanaimo, B.C.	19·7	0·6	11·5
Division No. 5, remaining parts, Man.	24·9	4·1	46·0	North Battleford, Sask.	19·7	4·8	18·4
Westmorland, remaining parts, N.B.	24·9	44·9	48·9	Kenora, Ont.	19·5	8·8	28·5
Sherbrooke, remaining parts, Que.	24·6	58·8	62·9	Collingwood, Ont.	19·6	2·0	5·5
Division No. 1, Sask.	24·3	6·8	21·8	Dartmouth, N.S.	19·4	5·8	26·5
Carleton, N.B.	23·7	1·1	9·6	Yarmouth, N.S.	19·4	26·8	37·0
Norfolk, remaining parts, Ont.	23·1	1·9	11·3	Orillia, Ont.	19·2	2·1	11·4
Division No. NC, remaining parts, B.C.	23·0	2·0	11·9	Cobourg, Ont.	18·8	1·7	18·2
Frontenac, remaining parts, Que.	23·0	5·0	18·3	Mimico, Ont.	18·8	1·4	15·1
Bruce, Ont.	22·4	1·7	14·9	New Glasgow, N.S.	18·7	5·7	25·2
Kings, N.B.	21·7	1·5	9·2	Nelson, B.C.	18·5	3·4	15·7
Lanark, remaining parts, Ont.	21·7	3·6	14·7	Lindsay, Ont.	18·4	2·5	17·7
Lunenburg, N.S.	21·3	7·0	1·9	Brockville, Ont.	18·2	6·8	18·3
Dundas, Ont.	20·7	7·7	10·0	Transcona, Man.	18·2	10·3	43·9
Division No. 5B, B.C.	20·2	1·2	15·5	Barrie, Ont.	18·0	1·1	9·4
Haldimand, Ont.	20·1	1·6	6·7	Prince Rupert, B.C.	18·0	2·7	13·6
Chambly, remaining parts, Que.	20·0	60·6	75·8	Portage la Prairie, Man.	17·7	3·4	24·7
Welland, remaining parts, Ont.	19·8	2·7	21·9	Ingersoll, Ont.	17·6	4·0	8·3
Huron, Ont.	19·4	2·5	8·7	Smith's Falls, Ont.	17·6	4·0	15·5
Division No. 9, Man.	18·7	3·6	19·4	Truro, N.S.	17·1	2·9	7·0
Division No. 2, remaining parts, B.C.	15·9	2·6	6·8	Simcoe, Ont.	17·0	2·4	5·0
				Dundas, Ont.	16·8	2·1	17·6
Total (57 cases)	1,612·4	1,988·0	2,641·1	Preston, Ont.	16·8	2·4	27·3
Average	28·3	34·9	46·3	Waterloo, Ont.	16·8	2·0	26·9
				Brampton, Ont.	16·6	0·8	6·3
Standard deviation	6·8	40·0	35·1	North Vancouver, B.C.	16·4	1·8	8·5
Correlation with standardized birth rate		·67	·71	Amherst, N.S.	16·1	19·7	27·4
				Fort Erie, Ont.	15·6	2·1	15·8
				Fredericton, N.B.	15·4	2·6	14·6
				Weston, Ont.	14·7	2·3	8·7
				St. Lambert, Que.	13·8	30·7	38·3
				Whitby, Ont.	10·6	1·1	13·0
				Total (67 cases)	1,571·8	1,768·6	2,705·5
				Average	23·5	26·4	40·4
				Standard deviation	8·0	36·0	31·9
				Correlation with standardized birth rate		·72	·80

For footnotes, see those of corresponding number on pages 166 and 169.

TABLE 17. Correlation of standardized birth rates with percentage French and with percentage Roman Catholic for (1) a sample of the counties or census divisions exclusive of cities and towns of 5,000 and over, (2) cities and towns of 5,000–10,000, (3) cities and towns of 10,000–30,000 and (4) cities of 30,000 and over—Con.

City or Town	Standardized Birth Rate, 1930-32	P.C. French, 1931	P.C. Roman Catholic, 1931	City or Town	Standardized Birth Rate, 1930-32	P.C. French, 1931	P.C. Roman Catholic, 1931
CITIES AND TOWNS OF 10,000-30,000				CITIES OF 30,000 AND OVER			
Chicoutimi, Que.	42·4	95·3	90·6	Trois-Rivières, Que.	31·5	93·6	96·0
Thetford Mines, Que.	40·3	94·8	96·5	Quebec, Que.	27·4	91·3	96·2
Shawinigan Falls, Que.	38·3	92·6	94·3	Montreal, Que.	20·0	63·9	76·3
Sudbury, Ont.	33·9	35·9	58·2	Verdun, Que.	19·7	38·3	51·4
Hull, Que.	33·2	90·1	96·0	Saint John, N.B.	19·6	5·7	31·3
Timmins, Ont.	32·1	35·0	59·1	Halifax, N.S.	19·4	6·1	40·7
Glace Bay, N.S.	31·7	5·5	51·7	Windsor, Ont.	18·5	13·8	33·5
Granby, Que.	30·5	86·0	88·9	Brantford, Ont.	18·2	1·3	14·5
Cornwall, Ont.	30·4	43·6	58·3	Edmonton, Alta.	17·8	4·6	18·6
Valleyfield(Salaberry-de-), Que.	29·0	87·6	91·0	Kitchener, Ont.	17·8	2·3	28·0
Sorel, Que.	28·0	97·5	57·6	Regina, Sask.	17·8	2·0	19·8
Joliette, Que.	28·4	95·7	97·1	Hamilton, Ont.	17·1	1·6	18·5
Sydney, N.S.	24·9	5·7	49·2	Saskatoon, Sask.	16·6	3·1	15·1
East Windsor, Ont.	24·7	28·0	51·5	Calgary, Alta.	16·4	2·1	12·6
Sault Ste. Marie, Ont.	24·3	0·3	38·7	Ottawa, Ont.	15·8	29·5	48·2
North Bay, Ont.	23·8	22·9	42·2	Toronto, Ont.	14·5	1·7	14·3
Lévis, Que.	23·6	97·6	99·1	London, Ont.	14·0	1·2	11·5
St-Jean, Que.	23·5	88·5	93·0	Winnipeg, Man.	13·1	2·3	21·5
St-Hyacinthe, Que.	21·3	98·2	98·9	Vancouver, B.C.	12·9	1·3	9·6
Sandwich, Ont.	21·1	23·6	39·7	Victoria, B.C.	12·9	1·3	6·1
Lachine, Que.	20·7	57·1	67·6				
Sherbrooke, Que.	20·7	75·6	80·5	Total (20 cases)	361·0	367·4	663·7
Fort William, Ont.	20·6	4·0	37·8	Average	18·1	18·4	20·2
Lethbridge, Alta.	20·6	2·0	20·1	Standard deviation	4·5	29·2	26·9
Oshawa, Ont.	20·5	2·1	16·1				
Sarnia, Ont.	19·9	4·2	14·0	Correlation with standardized birth rate	....	·84	·86
Welland, Ont.	19·7	8·5	34·2				
Chatham, Ont.	19·3	8·2	17·8				
New Westminster, B.C.	19·1	1·9	10·6				
Peterborough, Ont.	19·1	3·7	23·8				
Niagara Falls, Ont.	18·8	2·8	23·2				
Port Arthur, Ont.	18·6	4·9	25·8				
Guelph, Ont.	18·4	2·1	22·5				
Owen Sound, Ont.	18·4	2·1	7·0				
St. Catharines, Ont.	18·4	2·8	10·8				
Kingston, Ont.	18·2	4·6	22·7				
Moncton, N.B.	18·2	33·1	43·0				
Medicine Hat, Alta.	17·7	2·3	12·3				
Belleville, Ont.	17·6	3·9	15·3				
St. Boniface, Man.	17·5	36·6	59·7				
Stratford, Ont.	17·2	2·4	13·9				
Charlottetown, P.E.I.	16·9	9·8	47·4				
Moose Jaw, Sask.	16·5	2·0	11·1				
Walkerville, Ont.	15·8	6·5	14·0				
Galt, Ont.	15·7	1·5	9·7				
Brandon, Man.	15·4	1·8	10·5				
St. Thomas, Ont.	15·1	1·8	8·0				
Woodstock, Ont.	14·8	1·6	9·3				
Outremont, Que.	5·5	36·9	51·4				
Westmount, Que.	4·3	13·2	26·0				
Total (50 cases)	1,105·8	1,573·5	2,284·8				
Average	22·1	31·5	45·7				
Standard deviation	7·6	36·3	31·6				
Correlation with standardized birth rate	....	·63	·68				

TABLE 18.   Correlation of crude birth rates with percentage of population French and percentage
of population Roman Catholic, showing the correcting factor for these influences and
the crude birth rate independent of them for counties and census divisions of
Canada exclusive of cities and towns of 5,000 and over

County or Census Division[a]	Crude Birth Rate, 1930-32	P.C. of Population, French, 1931	P.C. of Population, Roman Catholic, 1931	Correcting Factor[1] for French and Roman Catholic	Crude Birth Rate Independent of French and Roman Catholic
Division No. 10A, B.C.	3·0	0·0	53·0	1·199	2·5
Division No. 9A, B.C.	7·9	2·8	28·4	1·115	7·1
Division No. 10B, B.C.	11·8	6·0	82·9	1·311	9·0
Division No. 5A, remaining parts, B.C.	13·0	1·5	10·4	1·044	12·5
Division No. 2, remaining parts, B.C.	13·8	2·6	16·4	1·070	12·9
Division No. 4, remaining parts, B.C.	14·3	2·7	11·7	1·055	13·6
Wentworth, remaining parts, Ont.	14·5	1·5	9·3	1·040	13·9
Elgin, remaining parts, Ont.	15·1	1·3	4·3	1·020	14·8
Middlesex, remaining parts, Ont.	15·6	0·9	7·0	1·029	15·2
Halton, Ont.	15·9	1·1	6·1	1·029	15·5
St. John, remaining parts, N.B.	16·0	6·6	27·9	1·124	14·2
Lincoln, remaining parts, Ont.	16·0	1·8	11·2	1·048	15·3
Huron, Ont.	16·3	2·3	8·7	1·048	15·7
Brant, remaining parts, Ont.	16·4	1·1	5·8	1·025	16·0
Division No. 5B, B.C.	16·4	1·2	15·5	1·062	15·4
Victoria, N.S.	16·6	1·8	32·8	1·120	14·7
Victoria, remaining parts, B.C.	16·6	1·2	10·5	1·044	15·9
Brome, Que.	16·7	45·3	45·0	1·315	12·7
Division No. 9C, remaining parts, B.C.	16·7	2·8	11·2	1·049	15·9
Grenville, Ont.	16·8	5·5	14·8	1·073	15·7
Division No. 6A, remaining parts, B.C.	16·8	2·7	20·7	1·086	15·5
Perth, remaining parts, Ont.	16·9	1·0	9·2	1·038	16·3
Antigonish, N.S.	17·0	21·7	86·7	1·396	12·2
Durham, Ont.	17·0	0·6	3·5	1·015	16·7
Peel, remaining parts, Ont.	17·1	0·4	9·7	1·038	16·5
Lambton, remaining parts, Ont.	17·2	2·3	7·8	1·047	16·6
Lennox, Ont.	17·2	1·6	9·0	1·039	16·6
Northumberland, remaining parts, Ont.	17·2	2·4	9·1	1·042	16·5
Ontario, remaining parts, Ont.	17·2	1·0	8·5	1·035	16·6
Division No. 9, Man.	17·2	3·6	19·4	1·084	15·9
Division No. 7, remaining parts, Man.	17·3	4·6	10·4	1·054	16·4
Division No. 7, B.C.	17·4	2·2	17·3	1·072	16·2
Dufferin, Ont.	17·5	0·3	2·0	1·008	17·4
Simcoe, remaining parts, Ont.	17·5	11·7	20·3	1·114	15·7
Kings, P.E.I.	17·6	7·2	49·5	1·209	14·6
Dundas, Ont.	17·6	7·7	10·0	1·092	16·1
Division No. 8, Man.	17·7	2·9	11·3	1·047	16·9
Division No. 3, B.C.	17·9	2·5	15·7	1·067	16·8
Haldimand, Ont.	18·0	1·6	6·7	1·030	17·5
Welland, remaining parts, Ont.	18·0	2·7	21·9	1·091	16·5
Wellington, remaining parts, Ont.	18·0	1·0	12·9	1·052	17·1
Kings, remaining parts, N.S.	18·1	1·6	16·7	1·070	16·9
Picton, remaining parts, N.S.	18·3	5·1	15·8	1·079	17·0
Kings, N.B.	18·3	1·5	9·7	1·041	17·6
Montreal and Jesus Islands, remaining parts, Que.	18·3	70·2	78·2	1·520	12·0
Oxford, remaining parts, Ont.	18·3	0·9	4·3	1·019	18·0
Grey, remaining parts, Ont.	18·4	0·7	5·9	1·024	18·0
Division No. 8B, B.C.	18·4	2·9	30·9	1·125	16·4
Prince Edward, Ont.	18·6	1·4	4·9	1·021	18·2
Chambly, remaining parts, Que.	18·8	69·6	73·8	1·509	12·5
Lunenburg, N.S.	18·9	0·7	7·0	1·030	18·3
Carleton, remaining parts, Ont.	19·1	16·1	31·5	1·179	16·3
Peterborough, remaining parts, Ont.	19·1	2·0	17·5	1·072	17·8
Frontenac, remaining parts, Ont.	19·2	5·0	18·0	1·085	17·7
Inverness, N.S.	19·3	23·0	71·0	1·347	14·4
Division No. 3, Alta.	19·3	2·4	13·9	1·072	18·0
Beauharnois, remaining parts, Que.	19·4	79·3	88·1	1·587	12·2
Brant, Ont.	19·4	1·7	14·9	1·061	18·3
Division No. 4, Man.	19·4	2·2	9·7	1·044	18·6
Division No. 3A, B.C.	19·4	4·9	24·8	1·109	17·5
Annapolis, N.S.	19·5	4·1	10·8	1·061	18·4
Queens, N.S.	19·5	3·1	10·8	1·051	18·6
Lanark, remaining parts, Ont.	19·7	3·6	16·7	1·074	18·3
Division No. 5, Alta.	19·8	2·1	12·5	1·054	18·8
Division No. 1, B.C.	19·9	3·4	16·3	1·124	17·7
Division No. 11, remaining parts, Sask.	20·1	2·6	10·0	1·083	18·6
Kings, N.S.	20·2	2·3	5·6	1·028	19·6
Norfolk, remaining parts, Ont.	20·2	1·0	11·3	1·049	19·3
Division No. 6, remaining parts, Sask.	20·2	4·1	30·3	1·127	17·9
Yarmouth, remaining parts, N.S.	20·4	48·7	50·0	1·348	15·1
Waterloo, remaining parts, Ont.	20·4	1·6	15·1	1·063	19·2
Charlotte, N.B.	20·5	1·6	11·7	1·049	19·5
Kent, remaining parts, Ont.	20·5	12·5	26·1	1·138	18·0
Division No. 11, Man.	20·5	2·3	18·3	1·070	19·1
Division No. 10C, B.C.	20·5	5·3	22·2	1·101	18·6
Carleton, N.B.	20·9	1·1	9·0	1·040	19·8

[1] Based upon equation $X_1 = 18·9 + 0·031 X_2 + 0·071 X_3$.   The expected rates from this equation converted into
an index based on 18·9 appear as above.
  For remainder of footnotes, see those of corresponding number on pages 165, 166 and 169.

TABLE 18.　Correlation of crude birth rates with percentage of population French and percentage of population Roman Catholic, showing the correcting factor for these influences and the crude birth rate independent of them for counties and census divisions of Canada exclusive of cities and towns of 5,000 and over—Con.

County or Census Division	Crude Birth Rate, 1930-32	P.C. of Population, French, 1931	P.C. of Population, Roman Catholic, 1931	Correcting Factor[1] for French and Roman Catholic	Crude Birth Rate Independent of French and Roman Catholic
York, remaining parts, Ont.	20·6	1·3	8·0	1·034	19·9
Queens, remaining parts, P.E.I.	20·7	7·7	31·9	1·145	18·1
Rainy River, remaining parts, Ont.	20·7	8·4	24·1	1·118	18·5
Division No. 10, Man.	20·7	2·6	22·7	1·094	18·9
Richmond, N.S.	20·8	58·7	79·3	1·487	14·0
Division No. 4, Alta.	20·8	2·9	10·3	1·048	19·8
Muskoka, Ont.	21·0	4·8	10·4	1·055	19·9
Division No. 12, Sask.	21·0	5·5	15·3	1·075	19·5
Huntingdon, Que.	21·2	47·9	62·4	1·389	15·3
Division No. 6B, B.C.	21·2	3·1	54·0	1·213	17·5
Westmorland, remaining parts, N.B.	21·3	44·4	48·6	1·327	16·1
Division No. 6, remaining parts, N.B.	21·3	4·1	46·0	1·186	18·0
Thunder Bay, remaining parts, Ont.	21·4	6·4	31·8	1·140	18·8
Division No. 1, Sask.	21·4	6·8	21·8	1·104	19·4
Division No. 8, Alta.	21·5	2·4	14·1	1·061	20·3
Albert, N.B.	21·5	1·1	7·0	1·030	21·0
Argenteuil, Que.	21·7	58·1	61·0	1·417	15·3
St-Hyacinthe, remaining parts, Que.	21·8	99·4	99·7	1·695	12·9
Essex, remaining parts, Ont.	21·9	27·0	41·0	1·244	17·6
Kenora, remaining parts, Ont.	21·9	5·9	24·0	1·100	19·7
Division No. 3, Man.	21·9	12·0	21·7	1·120	19·6
Stanstead, remaining parts, Que.	22·0	60·3	61·7	1·426	15·4
Glengarry, Ont.	22·0	49·3	68·3	1·416	15·5
Division No. 4, Sask.	22·0	8·7	21·8	1·110	19·8
Cape Breton, remaining parts, N.S.	22·1	9·3	58·5	1·250	17·7
Division No. 7, remaining parts, Sask.	22·1	2·9	9·1	1·044	21·2
Division No. 6, remaining parts, Alta.	22·1	6·9	16·6	1·071	20·6
Stormont, remaining parts, Ont.	22·2	38·6	50·6	1·315	16·9
Digby, N.S.	22·4	50·0	53·5	1·362	16·4
Cumberland, remaining parts, N.S.	22·5	6·4	11·1	1·062	21·2
Queens, N.S.	22·5	4·1	6·7	1·038	21·7
Division No. 2, remaining parts, Sask.	22·5	4·8	21·7	1·097	20·5
Division No. 3, Alta.	22·5	2·7	16·2	1·070	21·0
Division No. 7, Alta.	22·5	4·5	18·8	1·085	20·7
York, remaining parts, N.B.	22·6	2·1	10·2	1·048	21·6
Shelburne, N.S.	22·7	1·0	1·5	1·011	22·5
Renfrew, Ont.	22·7	11·3	14·4	1·192	19·0
Division No. 5, Sask.	22·7	2·4	23·8	1·097	20·7
Addington, Ont.	22·8	5·7	23·3	1·100	20·6
Division No. 6, remaining parts, Man.	22·8	18·2	30·2	1·172	19·5
Division No. 13, Man.	22·9	9·4	30·9	1·222	18·7
Division No. 14, Man.	22·9	1·2	34·7	1·134	20·2
Sherbrooke, remaining parts, Que.	23·0	58·8	62·9	1·426	16·1
Vaudreuil, Que.	23·1	86·7	90·3	1·619	14·3
Châteauguay, Que.	23·2	74·9	79·0	1·539	15·1
Missisquoi, Que.	23·2	67·9	71·9	1·489	15·6
Hastings, remaining parts, Ont.	23·2	6·6	17·3	1·086	21·4
Division No. 3, Sask.	23·3	17·1	32·1	1·176	19·8
Halifax, remaining parts, N.S.	23·5	8·5	23·8	1·117	21·0
Colchester, remaining parts, N.S.	23·6	2·7	3·2	1·021	23·1
Division No. 8, remaining parts, Sask.	23·7	2·1	20·1	1·082	21·9
St-Jean, remaining parts, Que.	23·8	89·1	90·4	1·627	14·6
Division No. 12, Man.	23·9	7·6	52·4	1·291	19·6
Guysborough, N.S.	24·3	11·2	36·0	1·171	20·8
Manitoulin, Ont.	24·3	3·7	25·8	1·100	21·9
Division No. 15, Man.	24·3	8·9	16·4	1·090	22·3
Division No. 2, remaining parts, Alta.	24·3	3·3	24·1	1·101	22·1
Sunbury, N.B.	24·4	3·1	18·1	1·101	22·2
Algoma, remaining parts, Ont.	24·4	19·5	36·2	1·199	20·4
Division No. 9, remaining parts, Sask.	24·4	0·6	34·0	1·130	21·6
Division No. 16, Man.	24·4	7·0	35·1	1·151	21·2
Compton, Que.	24·6	67·0	69·0	1·475	16·7
Division No. 10, Sask.	24·6	14·6	31·3	1·124	21·9
Rouville, Que.	24·8	95·2	95·4	1·666	14·9
Parry Sound, Ont.	24·8	5·4	19·8	1·105	22·4
Iberville, Que.	24·9	95·6	98·2	1·677	14·8
Hants, N.S.	24·9	1·6	5·5	1·026	24·3
Division No. 14, Sask.	25·1	2·6	30·2	1·127	22·3
Soulanges, Que.	25·3	94·4	96·8	1·668	15·2
Prince, P.E.I.	25·5	20·7	49·3	1·271	20·1
Pontiac, Que.	25·7	41·2	63·8	1·373	18·7
Haliburton, Ont.	25·8	2·3	3·0	1·019	25·3
Division No. 15, remaining parts, Sask.	25·8	11·7	33·6	1·164	22·2
Division No. 12, Alta.	25·8	3·2	26·3	1·109	23·3
Lapraire, Que.	26·1	73·1	95·0	1·599	16·3
Deux-Montagnes, Que.	26·4	94·0	96·5	1·660	15·8
Richelieu, remaining parts, Que.	26·4	99·5	99·8	1·696	15·6
Prescott, remaining parts, Ont.	26·4	77·5	84·1	1·566	16·9

TABLE 18.   Correlation of crude birth rates with percentage of population French and percentage of population Roman Catholic, showing the correcting factor for these influences and the crude birth rate independent of them for counties and census divisions of Canada exclusive of cities and towns of 5,000 and over—Con.

County or Census Division	Crude Birth Rate, 1930-32	P.C. of Population, French, 1931	P.C. of Population, Roman Catholic, 1931	Correcting Factor¹ for French and Roman Catholic	Crude Birth Rate Independent of them for French and Roman Catholic
Division No. 9D, B.C.	26·4	1·8	5·2	1·025	25·8
Division No. 11, remaining parts, Alta.	26·6	10·0	29·6	1·143	23·3
Trimiskaming, Ont.	26·7	21·1	37·2	1·208	22·1
Division No. 10, Alta.	26·7	1·7	38·1	1·149	23·2
Division No. 14, Sask.	26·8	7·1	22·0	1·106	24·2
Division No. 1, remaining parts, Alta.	26·8	1·7	19·6	1·079	24·8
Quebec, remaining parts, Que.	26·9	92·7	96·7	1·662	16·2
Division No. 7, Sask.	26·9	12·0	26·0	1·139	23·6
Northumberland, N.B.	27·0	25·0	54·6	1·286	21·0
Napierville, Que.	27·0	98·1	99·2	1·689	16·0
Drummond, remaining parts, Que.	27·1	92·2	93·8	1·650	16·4
Division No. 16, Alta.	27·2	5·1	23·5	1·105	24·6
Berthier, Que.	27·4	98·8	99·6	1·603	16·2
Division No. 9B, B.C.	27·7	1·1	37·5	1·144	24·2
Shefford, remaining parts, Que.	27·9	86·6	87·8	1·610	17·3
Verchères, Que.	28·1	95·6	97·2	1·674	16·8
Sudbury, remaining parts, Ont.	28·3	43·4	62·5	1·375	20·6
Russell, Ont.	28·7	79·2	82·0	1·564	18·4
Division No. 18, remaining parts, Sask.	28·7	10·6	42·3	1·193	24·1
Cochrane, remaining parts, Ont.	29·0	40·4	58·9	1·352	21·4
Victoria, N.B.	29·2	30·7	41·8	1·256	23·2
L'Assomption, Que.	29·2	96·4	97·7	1·678	17·4
Terrebonne, remaining parts, Que.	29·2	91·2	93·4	1·645	17·8
Montcalm, Que.	29·3	92·7	96·3	1·661	17·6
Division No. 2, Man.	29·5	13·5	18·9	1·114	26·5
St-Maurice, remaining parts, Que.	29·6	97·8	99·5	1·688	17·5
Lévis, remaining parts, Que.	29·9	97·3	99·0	1·680	17·7
Division No. 14, Alta.	30·3	13·4	39·3	1·191	25·4
Bagot, Que.	30·4	99·2	99·5	1·694	17·9
Hull, remaining parts, Que.	30·4	68·0	82·9	1·531	19·9
Nicolet, Que.	30·4	99·3	100·0	1·696	17·9
Richmond, Que.	30·6	78·6	82·0	1·562	19·6
Papineau, Que.	30·7	80·8	88·5	1·593	19·3
Yamaska, Que.	30·8	98·2	99·7	1·691	18·2
Kent, N.B.	31·0	77·3	83·7	1·564	19·8
Arthabaska, remaining parts, Que.	31·1	98·5	99·5	1·692	18·4
Mégantic, remaining parts, Que.	31·1	90·9	93·3	1·644	18·9
Division No. 15, Alta.	31·6	27·4	55·4	1·297	24·4
Joliette, remaining parts, Que.	31·8	97·6	99·0	1·687	18·8
Nipissing, remaining parts, Ont.	31·9	62·1	75·1	1·483	21·5
Maskinongé, Que.	32·0	98·8	99·7	1·693	18·9
Montmagny, Que.	32·0	99·2	99·7	1·695	18·9
Division No. 1, Man.	32·3	21·2	46·5	1·243	26·0
Kamouraska, Que.	32·4	99·4	99·6	1·690	19·1
Portneuf, Que.	32·7	96·8	98·7	1·683	19·4
L'Islet, Que.	32·9	99·3	99·4	1·684	19·4
Lotbinière, Que.	33·1	97·8	99·7	1·690	19·5
Champlain, remaining parts, Que.	33·2	97·3	99·3	1·687	19·7
Montmorency, Que.	33·2	97·9	99·0	1·688	19·7
Rimouski, remaining parts, Que.	33·5	97·4	99·0	1·660	19·8
Division No. 13, Alta.	33·5	26·3	56·9	1·299	25·8
Bellechasse, Que.	33·8	99·6	100·0	1·697	19·9
Division No. 13, Sask.	33·8	7·3	61·9	1·256	26·9
Bonaventure, Que.	33·9	74·7	82·8	1·552	21·8
Wolfe, Que.	34·2	95·2	95·5	1·666	20·5
Charlevoix, Que.	35·8	97·1	99·4	1·687	21·2
Madawaska, remaining parts, N.B.	36·6	96·1	99·1	1·682	21·8
Dorchester, Que.	36·7	96·0	99·2	1·682	21·8
Restigouche, remaining parts, N.B.	36·9	68·7	81·0	1·526	24·2
Beauce, Que.	37·1	99·0	99·7	1·694	21·9
Labelle, Que.	37·4	96·6	98·9	1·683	22·2
Gloucester, N.B.	37·5	83·2	92·6	1·616	23·2
Témiscouata, remaining parts, Que.	37·6	98·7	99·6	1·693	22·2
Frontenac, Que.	37·7	96·4	96·9	1·673	22·5
Gaspé, Que.	38·0	77·6	89·8	1·588	23·9
Saguenay, Que.²	38·2	79·2	94·1	1·609	23·7
Isle-de-la-Madeleine, Que.²	38·3	90·0	91·1	1·632	23·5
Division No. 17, Alta.	38·3	5·4	67·8	1·275	30·2
Témiskaming, Que.	39·2	73·4	87·3	1·602	25·1
Abitibi, Que.	39·3	88·7	93·0	1·636	24·0
Matane, Que.	41·5	97·5	99·0	1·687	24·6
Chicoutimi, remaining parts, Que.	43·6	94·3	97·5	1·671	26·1
Lac-St-Jean, Que.	45·1	95·3	98·8	1·682	26·3

APPENDICES

APPENDIX I

MISSTATEMENT OF AGE IN THE CANADIAN CENSUS

The aim of this appendix is to provide at least a limited approach to the problem of the extent of misstatement of age by the population enumerated in the Canadian census; to find whether the misstatement has decreased or increased since the early censuses; and to ascertain the effect of age and sex and rural or urban residence on the accuracy of reporting. The study was circumscribed in that, since the census is the only source of information on the ages of the entire population, testing was confined to comparing one census with another. Several samples were used and all the censuses from 1871 to 1936 were the material sampled.

The first of the several samples was obtained from the Old Age Pension search files. These record the ages of the applicants for Old Age Pensions and the ages of their parents, brothers and sisters as given in the censuses of 1871, 1881, 1891 and 1901. A total of 4,474 cases were found where reported ages could be compared as at two consecutive censuses. In addition to these 337 cases for these years were obtained where the ages could be matched over a 20-year interval, but not for a 10-year one.

The average number of years aged during the inter-censal period for males and females separately and the standard deviations of the distributions of "years aged" are shown below.

| | Sample from Old Age Pension Search Files (10-year period), 1871, 1881, 1891 and 1901 | | | |
| Age Group | Males | | Females | |
	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution
0– 9	9·81	0·89	9·81	1·01
10–19	9·62	1·40	9·38	1·55
20–29	9·62	·2·28	9·54	·2·57
30–39	10·10	2·76	10·05	2·76
40–49	10·35	3·35	9·38	3·06
50–59	10·04	2·88	10·56	2·60
60–69	9·38	2·04	10·42	2·44

It is seen that the standard deviation is smallest at the first 10-year age group (comprising persons who were 0-9 years of age according to the first of two consecutive censuses), standing at 0·89 years for males and 1·01 years for females. A gradual increase with age in the standard deviation brings them to a maximum for both males and females at 40-49, where the spread is measured by a standard deviation of more than three years for both sexes. Thus, at these ages, about one-third of the population gave ages at two consecutive censuses which differed by less than 7 or more than 13 years. Here, as elsewhere throughout this appendix, it may be seen that overstatements balance understatements to a very considerable degree and the average error is 0·35 years.

The 337 individuals who were traced between two censuses twenty years apart, but not found in the intervening census, are shown below. The numbers in each sex-age group were so small that the sexes have been combined.

| | Sample from Old Age Pension Search Files (20-year period), 1871, 1881, 1891 and 1901 | |
Age Group	Mean Difference in Age	Standard Deviation of Distribution
0– 9	19·56	1·18
10–19	19·19	2·20
20–29	18·87	2·74
30–39	19·65	2·76
40–49	19·65	3·22
50–59	19·60	2·91

Though the sample is very small it is interesting to note that the result is essentially similar to that of the previous statement, the standard deviations proceeding to a maximum at 40-49 and declining somewhat at the very oldest age. As is to be expected from the longer span of years, the standard deviations are greater than those of the 1931 comparison and the means diverge more widely from the true.

The above conclusions are based on information collected from censuses prior to 1911. For a comparison with the most recent period a sample was taken of those persons who could be traced through the censuses of 1931 and 1936. The search was conducted for one province only, Alberta being chosen for this purpose.

However, before proceeding with the province as a whole, it was considered advisable to test whether the results would differ greatly from one district to another. A total of 1,038 persons, including 577 males and 461 females, were collected from the books of the urban district of Lethbridge and 1,059, including 585 males and 474 females, from the books of the largely rural district of Acadia.

Age Group	Sample from Lethbridge, Alta., 1931-36				Sample from Acadia, Alta., 1931-36			
	Males		Females		Males		Females	
	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution
0- 9	5·01	0·45	4·99	0·43	5·04	0·58	4·93	0·58
10-19	5·01	0·53	5·05	0·79	4·88	0·57	4·95	0·40
20-29	5·18	0·94	5·17	1·40	4·80	1·00	5·14	1·46
30-39	5·15	1·64	4·81	1·57	5·07	1·61	5·23	1·74
40-49	5·24	1·31	5·21	1·00	5·42	1·34	5·03	1·77
50-59	5·05	1·08	4·91	1·81	5·36	1·03	5·19	1·37
60-69	5·05	0·80	4·88	1·23	5·39	1·02	4·86	0·82

It was considered that the two districts were not too dissimilar to justify average for the whole province. About 700 names were then matched between the two censuses (1931 and 1936) in each of the sixteen districts of Alberta, with the exception of Peace River and Athabaska where some 400 only were matched. Subdistricts for search were chosen so that they were distributed fairly evenly throughout the main district.

In all, 11,196 cases were tabulated, of which 6,109 were males and 5,087 were females. This is a representative sample as regards the proportion of the sexes, since 0·01526 of the male population of Alberta in 1931 are included against 0·01535 of the female population. In regard to age distribution it seemed moderately similar to that of the population as a whole. The very early ages of life are somewhat over-represented and those from 15 to 35 slightly under-represented. From age 35 until the end of life the age distribution of the sample is very close to that of the population as a whole. This can be easily explained. Children at home are easily traced from one census to another, but in the late teens and twenties, when new families are being formed and new households organized, addresses change and the tracing is very difficult. After age 40 people are more likely to have a fixed abode. (It may be said generally that the ages of greatest population movement are 20-40.)

The sample is displayed by single years of age in the scatter diagram, pages 194-196.

Following is a summary in terms of mean increase in reported age between the two censuses and the standard deviation of the increases as reported.

Age Group	Sample from the Province of Alberta, 1931-36			
	Males		Females	
	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution
0- 9	4·96	·0·58	4·99	*0·59
10-19	4·92	0·72	4·94	0·67
20-29	5·00	1·17	5·14	1·28
30-39	5·13	1·49	5·04	1·71
40-49	5·18	1·48	5·02	1·57
50-59	5·05	1·56	5·03	1·65
60-69	5·08	1·63	4·97	1·88
70-79	4·92	1·34	4·96	1·32

COMPARISON BETWEEN AGES AS STATED IN 1931 AND 1936 FOR A SAMPLE OF 11,196 PERSONS TAKEN FROM THE PROVINCE OF ALBERTA

	Age as Stated in 1931	Age as Stated in 1936																									
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	0–1.........	2	252	25	2		1																				
2	1.........		26	225	14	2																					
3	2.........			30	213	25		2																			
4	3.........			1	38	242	32	2																			
5	4.........	1			4	35	229	25		1																	
6	5.........				1		3	35	259	15		1															
7	6.........					1		38	228	25	3	2															
8	7.........								1	33	231	25	1														
9	8.........								2	5	33	273	25		1												
10	9.........								1	2	6	33	257	20	2												
11	10.........				1							1	4	37	266	34	1	1		1							
12	11.........													5	24	237	26			1							
13	12.........											1	3	6	30	230	31										
14	13.........													2	58	24	203	24									
15	14.........														2	2	29	203	20								
16	15.........														1	6	19	158	14	1							
17	16.........															3	17	135	14	1							
18	17.........																1	19	113	109	2	1					
19	18.........												1					1	3	26	99	15	2				
20	19.........																		6	22	79	9					
21	20.........																			2	2	22	84	14	5	2	
22	21.........																			1	7	20	75	13	1		
23	22.........																	1		2	5	23	75	18	20		
24	23.........																			3	6	21	76	20			
25	24.........																			3	20	70					
26	25.........																			1	1	13	11				
27	26.........																					2	2				
28	27.........																					1					
29	28.........																										
30	29.........																										
31	30.........																						1	1			1
32	31.........																							1			1
33	32.........																										
34	33.........																							1			
35	34.........																										
36	35.........																										
37	36.........																										
38	37.........																										
39	38.........																										
40	39.........																										
41	40.........																										
42	41.........																										
43	42.........																										
44	43.........																										
45	44.........																										
46	45.........																										
47	46.........																										
48	47.........																										
49	48.........																										
50	49.........																										
51	50.........																										
52	51.........																										
53	52.........																										
54	53.........																										
55	54.........																										
56	55.........																										
57	56.........																										
58	57.........																										
59	58.........																										
60	59.........																										
61	60.........																										
62	61.........																										
63	62.........																										
64	63.........																										
65	64.........																										
66	65.........																										
67	66.........																										
68	67.........																										
69	68.........																										
70	69.........																										
71	70.........																										
72	71.........																										
73	72.........																										
74	73.........																										
75	74.........																										
76	75.........																										
77	76.........																										
78	77.........																										
79	78.........																										
80	79.........																										
81	80 and over...																										
82	Total.......	3	279	282	273	308	300	336	281	299	340	333	320	313	286	270	250	198	176	162	135	127	125	120	120	133	120

COMPARISON BETWEEN AGES AS STATED IN 1931 AND 1936 FOR A SAMPLE OF 11,196 PERSONS TAKEN FROM THE PROVINCE OF ALBERTA

	Age as Stated in 1936																														
	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
20	1																														20
21		1																													21
22	4	1		1																											22
23	22	2	1		2																										23
24																															24
25																															25
26	93	19	1	2							1																				26
27	21	62	16	4	1	2																									27
28	5	14	74	19	4	3	1			2																					28
29	5	3	25	82	30	6	2		1																						29
30		2	22	77	26	3	4	1																							30
31			2	6	9	90	24	9	2																						31
32				1	4	10	98	32	5	1	1	1																			32
33					1	6	12	69	21	3	2					1															33
34					1	1	5	21	71	13	6	3			1				1												34
35					1	2	1	5	21	74	21	5	5			1															35
36			1	2		3	5	24	105	21	8	3	2	1	1			1			1										36
37	1				1	3	3	8	30	89	36	4	7	2	1	1						1									37
38					1	2	2	8	19	80	10	4	5		1	1															38
39							2	2	9	20	90	28	3	3		1															39
40							1		2	11	26	81	16	5	5	1															40
41		1		1					2	4	24	95	23	14	9	2							1								41
42						1		2	2	3	16	93	10	4	2	1							1	1							42
43										1	6	24	89	39	10	5	3	1													43
44					1				6	11	18	95	27	3	2	1	1											1		1	44
45								1	4	6	24	71	23	4	3		1										1	2	1		45
46										1	2	1	5	37	27	9	3	2	2			2									46
47										1	3	4	5	32	84	27	3	1	1												47
48												2	10	25	78	17	7	1					1		1	1					48
49									1	1	3	18	72	16	1	1	2			3	12	70									49
50											1	2	2	12	22	70	33	1													50
51						1											1	3	6	14	81	30	4	6	1		4	6			51
52														3	1	1	6	19	65	13	10		19	65	16	6					52
53																2	3	6	16	32	24	1	2	3	18	57	13	18			53
54																	1	2	4	6	18	57	15		4	57	24				54
55																											4	6	1	13	55
56																										1			1		56
57																								1				2	2	1	57
58																													1	1	58
59																						1								1	59
61																													1	1	61
62																															62
82	148	103	122	130	138	156	150	147	137	128	182	143	175	145	140	143	168	162	188	148	161	155	158	133	120	157	124	128	125	95	82

COMPARISON BETWEEN AGES AS STATED IN 1931 AND 1936 FOR A SAMPLE OF 11,196 PERSONS TAKEN FROM THE PROVINCE OF ALBERTA—Con.

Age as Stated in 1931	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85 and over	Total
1 0-1.....																											232
2 1.....																											268
3 2.....																											270
4 3.....																											317
5 4.....																											299
6 5.....																											316
7 6.....																											298
8 7.....																											297
9 8.....																											306
10 9.....																											321
11 10.....																											346
12 11.....																											294
13 12.....																											307
14 13.....																											256
15 14.....																											257
16 15.....																											199
17 16.....																											173
18 17.....																											146
19 18.....																											146
20 19.....																											119
21 20.....																											134
22 21.....																											118
23 22.....																											127
24 23.....																											134
25 24.....																											130
26 25.....																											143
27 26.....																											109
28 27.....																											122
29 28.....																											167
30 29.....																											135
31 30.....																											153
32 31.....																											155
33 32.....																											117
34 33.....																											125
35 34.....																											135
36 35.....																											179
37 36.....																											180
38 37.....																											140
39 38.....																											171
40 39.....																											148
41 40.....																											180
42 41.....																											142
43 42.....																											180
44 43.....																											168
45 44.....																											140
46 45.....																											166
47 46.....			2																								154
48 47.....																											142
49 48.....	1																										133
50 49.....																											150
51 50.....	3				1																						151
52 51.....	1																										117
53 52.....	9																										148
54 53.....	4	2	1																								110
55 54.....	14	4	2	1																							98
56 55.....	46	5	8	1	2	2	1																				76
57 56.....	12	39	26	6	3																						94
58 57.....	9	3	37	15	2	2			1																		72
59 58.....	1	3	5	41	13	3	1																				69
60 59.....	1		2	12	15	4	3	1	1			3															61
61 60.....	1		1	3	9	49	10	3	3	1	1										1						82
62 61.....					1	11	34	7	3											1							57
63 62.....				1			22	2	2	3														1			42
64 63.....						2	7	17	2					1										1	1		35
65 64.....							1	9	32	10	1	1	1														55
66 65.....			1						2	2	3	21	7	11	4	1	1	1									35
67 66.....								2			2	3	6	12	16	4	1	1					2				40
68 67.....										1	2	7	16	4	1								2				31
69 68.....											1		4	13	2												22
70 69.....												1		4	17	3											25
71 70.....										1	1	3	14	5	2	1	1										26
72 71.....												1	5	14	1	1	1										23
73 72.....													2	3	10	5	1										21
74 73.....												1		1	12	3	1										19
75 74.....										1					1	3	3	3									12
76 75.....																2	1	5	2								10
77 76.....																1		2	1	2	2	1					12
78 77.....																		1	2	2	2						9
79 78.....																			1		1	2					4
80 79.....																					1		2				3
81 80 and over.....																									1	15	16
82 Total..	98	56	55	85	81	66	71	60	41	43	52	44	29	35	28	25	26	22	15	25	9	8	13	8	4	16	11,196

In a few cases children of 5, 6 and 7 years were found in the 1936 Census and not recorded in 1931. Omissions of this type encountered in the sample described above numbered 14 males of age 5 in 1936, 2 of age 6 and 1 of age 7; 9 females of age 5 and 2 of age 6.

Partly to determine the importance of the part played by the length of the inter-censal period, two samples of data from the 1921 and 1931 Censuses were then taken. The first was from Kings County, N.S., where the population is largely rural and contained 580 males and 489 females. The second was from the City of Westmount, Que., and contained 488 males and 580 females.

| Age Group | Sample from Kings County, N.S., 1921-31 | | | | Sample from Westmount, Que., 1921-31 | | | |
| | Males | | Females | | Males | | Females | |
	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution
0– 0	9·92	0·71	9·99	0·48	9·98	0·46	9·96	0·46
10–10	9·83	0·71	9·83	0·58	0·74	1·40	9·84	1·02
20–20	9·99	1·17	9·00	1·53	9·60	2·18	0·23	2·93
30–30	9·76	1·47	9·78	1·83	9·50	1·19	9·72	2·76
40–40	9·57	1·71	10·19	1·92	10·29	2·24	0·64	3·37
50–50	10·13	1·81	10·44	2·26	10·48	2·50	10·03	2·77
60–60	10·07	1·83	9·50	1·86	10·15	1·33	9·08	2·80

Both of these places show higher standard deviations over the 10-year period than Alberta in 1931-36 and, also, the urban was decidedly higher than the rural. It was thought of interest to compare Alberta 1931-36 with another urban sample for those years in order to discover if the high deviation were an urban characteristic. Therefore, the cases already collected from Calgary were tabulated separately and the deviations calculated. There were 547 males and 532 females in this sample. It is seen that the following results follow closely those given for the province of Alberta as a whole.

| Age Group | Sample from Calgary, Alta., 1931-36 | | | |
| | Males | | Females | |
	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution
0– 0	4·95	0·48	4·80	0·30
10–10	4·83	0·68	4·80	0·56
20–20	5·11	1·47	5·00	1·05
30–30	5·34	1·08	5·20	1·72
40–40	5·23	1·61	4·84	2·02
50–50	5·45	1·63	4·96	1·06
60–60	5·06	1·85	5·33	2·34

As a check on the representativeness of the Old Age Pension files two samples were collected directly from the census schedules. The first was from the 1871 and 1881 censuses of Bothwell, Ont. (624 males and 458 females), the second from the 1881 and 1891 censuses of Huntingdon, Que. (575 males and 508 females). The standard deviations are decidedly lower than for the Old Age Pensioners, particularly for males indicating that the Old Age Pensioners are not a representative group for this purpose.

| Age Group | Sample from Bothwell, Ont., 1871-81 | | | | Sample from Huntingdon, Que., 1881-91 | | | |
| | Males | | Females | | Males | | Females | |
	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution	Mean Difference in Age	Standard Deviation of Distribution
0– 0	9·07	0·63	10·05	0·71	9·87	0·62	9·06	0·60
10–10	9·81	1·00	9·37	1·38	9·63	0·90	9·55	1·63
20–20	10·00	1·33	9·56	1·86	9·80	1·94	9·48	1·55
30–30	10·00	2·45	9·70	1·53	10·04	1·45	9·35	2·22
40–40	10·08	1·59	9·46	2·29	10·03	1·14	10·05	2·05
50–50	9·56	1·90	10·24	2·43	10·30	1·85	10·10	2·66
60–60	10·42	2·25	–	–	0·96	2·62	9·67	3·35

The standard deviation for "all ages" is a convenient means of comparing the results from the different samples. However, the proportion of young children is much greater in some samples than in others and this would tend to decrease the standard deviation for "all ages." Therefore, it was necessary to standardize the standard deviations in order to eliminate the effect of age distribution.

The standardization was effected by the following process: the sum of the products of the squares of the deviations and total male or female population of each age was divided by the total population of the sample. This result gives the square of a standardized standard deviation.

Sample	Standardized Standard Deviation	
	Males	Females
Bothwell, Ont., 1871-81	1·38	1·53
Huntingdon, Que., 1881-91	1·39	1·81
Old Age Pension Search Files, 1871-1901 (10-year period)	1·89	1·93
Old Age Pension Search Files, 1871-1901 (20-year period)	2·22 (both sexes)	
Kings County, N.S., 1921-31	1·32	1·49
Westmount, Que., 1921-31	1·84	2·39
Province of Alberta, 1931-36	1·11	1·23

APPENDIX II

TREND OF THE BIRTH RATE IN THE PRAIRIE PROVINCES, 1921-1936

Introduction.—The facts that a census of the three Prairie Provinces, Manitoba, Saskatchewan and Alberta, is taken at five-year intervals instead of ten-year, and that census compilations for 1926 and 1936 have been made in detail by sex, age and conjugal condition, allow an analysis of the change in the crude birth rate not merely as between the two census periods of 1921 and 1931 but for the four census periods 1921, 1926, 1931 and 1936. In this connection it was thought well to consider these provinces as a group, not individually.

Trend in Rates of Birth, Death and Natural Increase.—Statement A gives the live births of each province over the period 1921-36 and contains also the annual totals for the three provinces combined. As was seen in considering the births in the Registration Area, the trend over the period, with the exception of the years 1927-30, was definitely downward. During the short period 1927-30 the births showed moderate increases. These were most noticeable in the province of Alberta.

A.—NUMBER OF LIVE BIRTHS, PRAIRIE PROVINCES, 1921-1936

Year	Prairie Provinces	Manitoba	Saskatchewan	Alberta
1921	57,532	18,478	22,493	16,561
1922	56,181	17,679	22,339	16,163
1923	52,479	16,472	20,947	15,060
1924	51,890	15,454	21,539	14,597
1925	50,373	14,867	20,582	14,924
1926	49,833	14,661	20,716	14,456
1927	50,059	14,147	21,015	14,897
1928	51,457	14,504	21,261	15,692
1929	52,606	14,236	21,446	16,924
1930	54,111	14,411	22,051	17,649
1931	52,159	14,076	21,331	17,252
1932	51,928	14,124	20,814	16,990
1933	49,572	13,304	20,145	16,123
1934	49,310	13,310	19,764	16,236
1935	49,087	13,335	19,569	16,183
1936	47,766	12,855	19,125	15,786

Statement B shows the birth rates corresponding to the absolute figures of Statement A. It will be observed that for the Prairie Provinces as a group, the rate fell from 29·4 in 1921 to 23·6 in 1927, and between 1927 and 1930 showed a tendency to stabilize itself at about this latter level. As in the case of the Registration Area, a new decline commenced with 1931 and the rate dropped steadily year by year until it reached the level of 19·8 per thousand in 1936—a fall in fifteen years of about 10 births per thousand population.

B.—CRUDE BIRTH RATES[1], PRAIRIE PROVINCES, 1921-1936

Year	Prairie Provinces	Manitoba	Saskatchewan	Alberta
1921	29·4	30·3	29·4	28·1
1922	28·4	28·7	29·0	27·3
1923	26·4	26·6	26·9	25·4
1924	25·6	24·7	27·2	24·5
1925	24·7	23·5	25·5	24·8
1926	24·1	22·9	25·2	23·8
1927	23·6	21·7	25·0	23·5
1928	23·6	21·8	24·7	23·8
1929	23·4	21·0	24·3	24·7
1930	23·5	20·9	24·4	24·9
1931	22·5	20·5	23·1	23·6
1932	21·8	19·9	22·3	23·0
1933	20·7	18·7	21·6	21·6
1934	20·6	18·7	21·2	21·5
1935	20·4	18·8	21·0	21·2
1936	19·8	18·1	20·5	20·4

[1]Rates per 1,000 population.

Throughout the period the death rate of this group of provinces, always low, owing partly to the age composition of the population and partly to other factors, was highest in 1922, when it stood at 8·7, and lowest in 1934, when it fell to 6·8.   In the initial year, 1921, the rate was 8·1 and in 1936 it was 7·7.   These rates are shown in Statement C below.

C.—DEATH RATES[1], PRAIRIE PROVINCES, 1921-1936

Year	Prairie Provinces	Manitoba	Saskatchewan	Alberta
1921	8·1	8·8	7·4	8·4
1922	8·7	9·3	8·0	8·9
1923	8·3	8·6	7·9	8·4
1924	7·8	8·0	7·3	8·1
1925	7·6	8·3	7·0	7·8
1926	8·0	8·3	7·4	8·5
1927	7·7	8·2	7·2	8·0
1928	7·9	8·1	7·2	8·7
1929	8·4	8·6	7·6	9·1
1930	7·6	8·3	7·0	7·8
1931	7·1	7·6	6·6	7·2
1932	7·1	7·5	6·5	7·5
1933	7·0	7·7	6·5	7·1
1934	6·8	7·3	6·4	7·1
1935	7·3	8·1	6·6	7·5
1936	7·7	8·7	6·8	8·0

[1] Rates per 1,000 population.

As a result of the large decline in the birth rate and the comparatively small and irregular movement of the death rate, the rate of natural increase for the Prairie Provinces showed a decline in every year throughout the period with the exceptions of 1930 and 1934.   At the beginning of the period the rate was 21·3; for 1936 it was 12·1.   The rates of natural increase are shown in Statement D for the period 1921-36.

D.—RATES[1] OF NATURAL INCREASE, PRAIRIE PROVINCES, 1921-1936

Year	Prairie Provinces	Manitoba	Saskatchewan	Alberta
1921	21·3	21·5	22·3	19·7
1922	19·7	19·4	21·1	18·4
1923	18·1	18·0	19·0	1·70
1924	17·8	16·7	19·0	16·4
1925	17·1	15·2	18·5	17·0
1926	16·1	14·6	17·8	15·3
1927	16·9	13·6	17·8	15·5
1928	15·7	13·7	17·5	15·1
1929	15·0	12·4	16·7	15·6
1930	16·0	12·6	17·4	17·1
1931	15·4	12·9	16·5	16·4
1932	14·7	12·4	15·8	16·5
1933	13·7	11·0	15·1	14·5
1934	13·8	11·4	14·8	14·4
1935	13·1	10·7	14·4	13·7
1936	12·1	9·4	13·7	12·4

[1] Rates per 1,000 population.

Specific Fertility Rates of All Women.—Statement E shows the specific fertility rates of women of all conjugal conditions for the four individual census years, 1921, 1926, 1931 and 1936.   Considering the provinces as a group, it will be noted that each census year showed a lower fertility rate than the previous, not only for the group of women of child-bearing ages considered as a whole but for each five-year period within these limits.   The decline was smallest between 1926 and 1931.   Between 1921 and 1926 and again between 1931 and 1936 the movement was quite pronounced.

E.—SPECIFIC FERTILITY RATES[1] OF WOMEN 15-49 YEARS OF AGE (ALL CONJUGAL CONDITIONS), BY AGE GROUP, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Province and Age Group	1921[1]	1926	1931	1936
Prairie Provinces—				
15-49 years	128·3	103·4	93·5	79·5
15-19 years	45·0	32·6	30·5	24·2
20-24 "	197·0	161·9	140·3	117·4
25-29 "	209·2	189·8	179·7	148·1
30-34 "	173·7	156·2	142·0	126·2
35-39 "	129·8	109·2	98·6	85·1
40-44 "	60·3	61·1	41·8	36·5
45-49 "	10·7	7·2	5·4	4·2
Manitoba—				
15-49 years	125·2	92·5	80·7	68·9
15-19 years	41·7	28·7	25·7	20·5
20-24 "	184·4	134·8	121·9	99·1
25-29 "	211·5	171·4	157·5	128·3
30-34 "	170·5	144·6	128·3	111·1
35-39 "	132·4	103·8	87·3	74·1
40-44 "	58·5	45·5	37·6	30·2
45-49 "	11·0	6·4	4·7	3·7
Saskatchewan—				
15-49 years	135·2	113·2	99·5	84·5
15-19 years	45·5	33·2	30·2	24·0
20-24 "	211·5	176·7	160·0	122·1
25-29 "	214·0	206·3	190·4	158·1
30-34 "	182·6	173·9	152·7	139·6
35-39 "	135·6	122·2	109·7	99·0
40-44 "	64·3	57·2	46·3	42·6
45-49 "	11·1	7·6	6·3	4·6
Alberta—				
15-49 years	119·5	103·1	99·3	84·1
15-19 years	47·2	36·9	35·7	28·0
20-24 "	187·2	175·4	164·4	130·3
25-29 "	194·3	189·1	188·9	156·3
30-34 "	161·0	146·5	142·6	125·7
35-39 "	115·0	99·7	96·9	83·0
40-44 "	55·8	49·5	40·6	36·0
45-49 "	9·6	7·6	4·9	4·3

[1] Rates per 1,000 women of age specified.
[2] Rates for Alberta are for 1922.

Standardized Birth Rates.—Standardized rates were computed for the Prairie Provinces (method explained in Chapter II, page 44) by applying the above specific fertility rates of all women to the corresponding age group of the female population of Canada, 1931, and interpolating for the intervening years. Statement F gives the standardized birth rates of Manitoba, Saskatchewan and Alberta and for the three provinces as a group.

F.—STANDARDIZED BIRTH RATES[1], PRAIRIE PROVINCES, 1921-1936

Year	Prairie Provinces	Manitoba	Saskatchewan	Alberta
1921				
1922	30·1	29·5	31·6	28·3
1923	29·1	27·9	30·9	25·7
1924	27·4	26·2	29·1	26·0
1925	26·9	24·5	29·8	26·9
1926	26·3	23·5	28·4	25·8
1927	25·7	22·9	28·1	25·6
1928	25·2	21·8	27·9	25·3
1929	25·0	21·8	27·3	26·3
1930	24·8	21·0	26·8	26·1
1931	24·7	20·8	26·7	24·8
1932	23·6	20·4	25·3	24·1
1933	22·9	19·8	24·4	22·3
1934	21·3	18·2	23·2	22·0
1935	20·6	17·9	22·4	20·5
1936	20·3	17·6	21·7	
	19·7	16·9	21·3	

[1] Per 1,000.

Standardization (which eliminates the influences of differences in the age composition of females in the child-bearing age groups) increased the fall in the birth rate over the period. This decline is now, in the Prairie Provinces as a whole, 10·4 births per thousand in the standardized rates and 9·6 births per thousand in the crude rates. Further, we observe that in 1921 the

standardized rate was 30·1 as against a crude rate of 29·4. Standardization having been effected on the basis of the population of all Canada in 1931, this indicates that the Prairie Provinces as a whole had, in 1921, a population more unfavourably composed by sex and age for a high birth rate than had the country as a whole ten years later.

In 1926 the standardized rate was 25·7 as against a crude rate of 24·1. The absolute and percentage differences were, therefore, greater than in 1921 and indicated that the population of these provinces in 1926 was less favourable to a high birth rate than in the earlier year.

In 1931 a standardized rate of 23·6 as against a crude rate of 22·5 indicated a diminishing difference as compared with 1926 and, therefore, a more favourably constituted population.

In 1936 the standardized rate was 19·7 and the crude rate 19·8. At this period, therefore, the composition of the population had become still more favourable to a high birth rate than in 1931 and practically corresponded with that of Canada as a whole in 1931.

Factors Affecting the Crude Birth Rate.—Factors A-E affecting the Canadian birth rate, summarized on page 58 of Chapter II, will now be discussed in connection with the Prairie Provinces.

Factor A, the proportion of women of child-bearing age to the total population, was increasing with each census both in the three provinces as a group and in each province individually. The change between 1921 and 1936 was most noticeable in Saskatchewan where the proportion improved by more than 10 p.c. In the Prairie Provinces as a whole there was an improvement of over 8 p.c. Thus, had every other factor which affects the crude birth rate remained constant, this change in proportion should have increased the rate for the Prairie Provinces by about 8·5 p.c. during the period 1921-36. Statement G shows the percentage proportion of women 15-49 years of age to the total population for the years 1921, 1926, 1931 and 1936.

G.—PERCENTAGE PROPORTION OF WOMEN 15-49 YEARS OF AGE TO TOTAL POPULATION, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Province	1921	1926	1931	1936
Prairie Provinces	22·9	23·3	24·1	24·9
Manitoba	24·2	24·8	25·4	26·2
Saskatchewan	22·0	22·3	23·2	24·3
Alberta	22·9	23·1	23·7	24·3

The effect of factor B, the change in the proportion of married women to all women within the child-bearing ages, is in sharp contrast to that of factor A. In relation to this factor each census shows a more unfavourable condition than the preceding one and between 1921 and 1936 the proportion of married women to all women between the ages of 15 and 50 years had declined by about 15 p.c. Statement H shows the percentage proportion of married women 15-49 years of age to all women by age group for the years 1921, 1926, 1931 and 1936.

H.—PERCENTAGE PROPORTION OF MARRIED WOMEN 15-49 YEARS OF AGE TO ALL WOMEN, BY AGE GROUP, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Province and Age Group	1921	1926	1931	1936
Prairie Provinces—				
15-49 years	67·2	62·0	60·2	57·0
15-19 years	9·7	6·4	5·8	4·8
20-24 "	53·9	44·8	42·6	36·2
25-29 "	79·2	76·9	74·9	69·0
30-34 "	87·5	87·1	86·5	83·7
35-39 "	89·5	89·7	89·3	88·0
40-44 "	88·8	88·9	89·3	88·7
45-49 "	87·1	87·2	87·5	87·4
Manitoba—				
15-49 years	62·8	58·5	56·3	54·1
15-19 years	8·0	5·0	4·8	4·0
20-24 "	46·6	37·2	35·0	31·4
25-29 "	73·6	70·2	68·0	62·0
30-34 "	83·4	82·8	81·8	78·6
35-39 "	85·9	85·3	85·7	84·1
40-44 "	85·0	85·1	86·5	85·5
45-49 "	85·4	84·6	84·1	84·5

H.—PERCENTAGE PROPORTION OF MARRIED WOMEN 15-49 YEARS OF AGE TO ALL WOMEN, BY
AGE GROUP, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936—Con.

Province and Age Group	1921	1926	1931	1936
Saskatchewan—				
15-49 years	69·3	64·8	61·1	56·9
15-19 years	10·6	7·0	5·9	4·6
20-24 "	58·2	48·5	45·1	37·1
25-29 "	82·5	80·7	77·6	70·9
30-34 "	90·0	89·7	88·8	85·7
35-39 "	91·7	91·9	91·6	90·1
40-44 "	90·8	91·6	91·2	90·8
45-49 "	88·8	89·1	89·9	89·4
Alberta—				
15-49 years	69·2	65·4	63·1	60·0
15-19 years	10·5	7·3	6·8	5·7
20-24 "	56·8	48·8	47·4	40·1
25-29 "	81·5	79·5	78·7	73·9
30-34 "	88·5	88·4	88·4	86·4
35-39 "	90·7	90·6	90·1	89·4
40-44 "	89·4	89·9	90·0	89·4
45-49 "	87·0	87·7	88·2	87·9

Statement I shows factor C, the percentage distribution of married women, 15-49 years of age, by age groups for the years 1921, 1926, 1931 and 1936, for the Prairie Provinces as a group and individually. Considering them as a group, declines over the fifteen-year period are shown in the proportion of married women in the age groups under 40 and increases in the age groups over 40. That is to say, the age distribution in 1936 was less favourable to a high fertility rate than was the distribution in 1921, a smaller proportion of the married women were in the age groups of high fertility and a greater proportion in the age groups of low fertility.

Among the five-year periods the greatest changes appear between 1921 and 1926. In 1926 the proportion in the age group 15-19 had fallen 19 p.c., the groups 20-24 and 25-29 had each dropped 12 p.c. and the proportion in the two oldest groups had increased 14 and 25 p.c., respectively. Between 1926 and 1931 the changes were not as pronounced and were in some cases of an opposite trend. During this period the proportion of married women in the 15-19 group did not change; in the age group 20-24 it increased 11 p.c. and in the age group 25-29 it increased 1 p.c. While it still decreased in the age group 30-34, it also decreased in the age group 35-39. The two higher age groups showed smaller increases, 2 p.c. for the 40-44 group and 12 p.c. for the oldest. Between the years 1931 and 1936, the proportion of married women increased in two of the groups, 5 p.c. in the 25-29 group and 8 p.c. in the 45-49 group. The greatest decrease, 14 p.c., took place in the youngest group and the decreases in the other groups were all under 5 p.c. Thus the census years, arranged in order of favourability of the distribution of married women to a high birth rate, would be 1921, 1931, 1926 and 1936.

I.—PERCENTAGE DISTRIBUTION OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP,
PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Province and Age Group	1921	1926	1931	1936
Prairie Provinces—				
15-49 years	100·0	100·0	100·0	100·0
15-19 years	2·9	2·1	2·1	1·8
20-24 "	12·9	11·3	12·5	12·2
25-29 "	19·6	17·2	17·4	18·3
30-34 "	20·6	19·3	17·8	17·7
35-39 "	19·4	20·3	18·5	17·7
40-44 "	14·7	16·8	17·1	16·6
45-49 "	10·5	12·9	14·5	15·7
Manitoba—				
15-49 years	100·0	100·0	100·0	100·0
15-19 years	2·3	1·8	1·8	1·5
20-24 "	12·0	10·3	11·1	11·3
25-29 "	19·5	16·8	16·8	17·7
30-34 "	20·4	19·7	17·7	17·6
35-39 "	19·5	20·6	19·3	17·9
40-44 "	15·0	17·3	17·9	17·4
45-49 "	11·2	13·4	15·4	16·6

I.—PERCENTAGE DISTRIBUTION OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936—Con.

Province and Age Group	1921	1926	1931	1936
Saskatchewan—				
15-49 years ...	100·0	100·0	100·0	100·0
15-19 years	2·8	2·3	2·2	1·0
20-24 "	13·6	11·9	13·1	12·6
25-29 "	19·9	17·7	17·5	18·4
30-34 "	20·7	19·3	17·8	17·4
35-39 "	19·3	20·1	18·4	17·9
40-44 "	14·2	16·4	16·8	16·5
45-49 "	9·6	12·4	14·2	15·7
Alberta—				
15-49 years ...	100·0	100·0	100·0	100·0
15-19 years	2·6	2·2	2·3	2·0
20-24 "	12·9	11·6	15·2	12·5
25-29 "	19·2	17·0	18·0	18·8
30-34 "	20·5	19·0	18·0	18·1
35-39 "	19·4	20·3	17·9	17·6
40-44 "	14·9	17·0	16·5	16·0
45-49 "	10·4	12·9	14·2	15·0

Statement J gives the specific fertility rates of the married women of child-bearing ages for the four census years (factor D). Considering the provinces as a group it will be observed that each census year shows a lower fertility rate than the preceding one, not only for the whole group of women of child-bearing ages but also for each five-year age group, with the exception of the group 15-19 years, which moves irregularly. It has already been remarked (Chapter II, page 43) that the fertility within marriage of this age group has not the same significance as that of other age groups.

J.—SPECIFIC FERTILITY RATES[1] OF MARRIED WOMEN 15-49 YEARS OF AGE, BY AGE GROUP, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Province and Age Group	1921[2]	1926	1931	1936
Prairie Provinces—				
15-49 years ...	187·8	160·3	150·2	134·3
15-19 years	418·1	453·4	454·6	417·2
20-24 "	356·9	348·1	333·1	307·0
25-29 "	261·9	243·9	230·1	210·1
30-34 "	197·3	178·0	162·6	149·0
35-39 "	143·9	121·2	109·4	96·2
40-44 "	67·2	57·0	45·4	40·7
45-49 "	12·9	8·3	6·1	4·7
Manitoba—				
15-49 years ...	194·7	153·0	158·4	122·0
15-19 years	450·1	452·3	424·0	416·9
20-24 "	381·6	344·7	330·0	298·1
25-29 "	264·1	240·7	228·8	202·5
30-34 "	202·7	173·0	155·5	140·0
35-39 "	153·2	119·5	100·7	86·8
40-44 "	67·5	53·0	43·2	34·4
45-49 "	12·7	7·5	5·0	4·4
Saskatchewan—				
15-49 years ...	192·8	171·4	158·0	145·0
15-19 years	394·9	421·8	437·2	428·2
20-24 "	359·4	355·4	339·1	311·3
25-29 "	258·2	253·0	241·8	218·5
30-34 "	201·0	192·5	170·6	161·5
35-39 "	147·3	132·2	118·0	108·1
40-44 "	70·5	62·3	50·4	46·6
45-49 "	12·5	8·4	6·9	5·1
Alberta—				
15-49 years ...	170·5	153·2	151·6	134·8
15-19 years	402·8	433·6	430·3	405·5
20-24 "	320·5	344·3	328·3	309·1
25-29 "	236·4	234·7	235·7	207·0
30-34 "	180·7	164·2	159·3	143·1
35-39 "	126·4	108·8	106·1	91·2
40-44 "	62·2	54·7	44·6	39·8
45-49 "	11·0	8·7	5·5	4·5

[1]Rates per 1,000 married women of age specified.
[2]Rates for Alberta are for 1922.

There has been a steady increase in the proportion of illegitimate births to total births (factor E) in the Prairie Provinces as a group and in each individual province. The greatest increase was in Saskatchewan, where in 1921 they formed 1·1 p.e. of total births and in 1936, 3·7 p.e. For the Prairie Provinces as a group the percentage was 1·7 in 1921 and 3·8 in 1936. As already stated in connection with the analysis for the Registration Area, the increase in the illegitimate births may be affected by better registration of such births and the proportion is also slightly affected by the decline in legitimate births over the period. Statement K shows the yearly proportions of the illegitimate births to the total births for the Prairie Provinces over the period 1921-36.

K.—PERCENTAGE ILLEGITIMATE BIRTHS FORM OF TOTAL BIRTHS, PRAIRIE PROVINCES, 1921-1936

Year	Prairie Provinces	Manitoba	Saskat- chewan	Alberta
1921	1·7	2·3	1·1	1·8
1922	1·7	2·3	1·1	1·9
1923	1·8	2·3	1·2	2·0
1924	2·0	2·7	1·3	2·0
1925	2·2	2·7	1·5	2·6
1926	2·5	3·2	1·7	2·8
1927	2·6	3·3	1·9	2·8
1928	2·8	3·5	2·1	3·0
1929	3·0	3·6	2·2	3·0
1930	3·2	3·7	2·5	3·2
1931	3·4	3·7	2·8	3·2
1932	3·4	3·6	3·0	3·7
1933	3·4	3·6	3·1	3·6
1934	3·6	3·8	3·2	3·6
1935	3·6	3·8	3·4	3·6
1936	3·5	3·8	3·3	3·8

Combined Effect of Factors Affecting Crude Birth Rates.—In order to effect an analysis of the change in the crude birth rate between successive census years on a similar basis to that which was made for the Registration Area in Statement XXX, page 59, we have first of all made computations which will show the extent to which the total fertility rate of all married women of child-bearing ages depends on the specific fertility rates of such women in five-year age groups and how much it depends on their age distribution. These preliminary computations are contained in Statement L. The figures in this statement have been carried to three decimal places as these figures were to be used in further computations.

Thus, the total fertility rate of married women of child-bearing ages in 1921 was 187·8 for the group (three provinces). In 1926 it was 160·3 but this decline was partly effected by changes in the specific fertility rates and partly by changes in the age distribution of the married women of child-bearing ages. The two intermediate figures between those quoted above indicate, respectively, what the total fertility rate would have been with the age distribution of 1921 and the specific rates of 1926 and what it would have been with the age distribution of 1926 and the specific rates of 1921.

L.—TOTAL FERTILITY RATES[1] FOR THE CHILD-BEARING AGES, PRAIRIE PROVINCES, 1921, 1926, 1931 AND 1936

Item	Prairie Provinces	Manitoba	Saskat- chewan	Alberta
Age distribution of 1921 and specific fertility rates of 1921	187·816	194·714	192·780	170·346
Age distribution of 1921 and specific fertility rates of 1926	173·389	166·103	185·238	164·577
Age distribution of 1926 and specific fertility rates of 1921	174·375	180·408	179·176	158·189
Age distribution of 1926 and specific fertility rates of 1926	160·272	153·047	171·410	153·172
Age distribution of 1926 and specific fertility rates of 1931	149·520	139·888	159·163	147·947
Age distribution of 1931 and specific fertility rates of 1926	160·104	151·182	170·103	156·960
Age distribution of 1931 and specific fertility rates of 1931	150·163	138·357	157·055	151·643
Age distribution of 1931 and specific fertility rates of 1936	135·544	123·005	145·621	136·681
Age distribution of 1936 and specific fertility rates of 1931	146·445	137·984	155·545	149·638
Age distribution of 1936 and specific fertility rates of 1936	134·303	122·587	143·026	134·810
Age distribution of 1936 and specific fertility rates of 1921	172·522	177·209	174·891	159·090
Age distribution of 1921 and specific fertility rates of 1936	147·445	136·012	159·205	143·952

[1] Rates per 1,000 married women 15-49 years of age.

As in the case of Statement XXX, the effect of factor C, the change in age distribution of married women of child-bearing ages can be computed in two ways, i.e., to observe the effect of this change in the age distribution of married women on the total fertility rates of the married women of child-bearing ages we can take the age distribution of 1921 and the age distribution of 1926 with either the fertility rates of 1921 or 1926. Between 1921 and 1926, the first method accounts for a reduction of 7·57 p.c. in the Prairie Provinces as a whole, the second method for a reduction of 7·16 p.c. The two methods, each of which appears equally valid, are close enough for reasonable conclusions. They give in some cases almost identical results and do not differ by as much as 1 p.c. in any instance. It will be noted that for the whole period 1921-36 this factor accounted for a reduction of between 8 and 9 p.c. in the crude birth rate of the Prairie Provinces as a whole.

The effects of factor D, the change in the specific fertility rates of married women of child-bearing ages, can likewise be computed in two ways, each of equal validity. Thus, as between 1921 and 1926, when we have measured the effect of the change in age distribution of the married women of child-bearing ages (factor C) using the specific fertility rates of 1926 as a basis, as in method 1 we must measure the effect of the change in specific fertility rates between 1921 and 1926 on the basis of the age distribution of 1921. Here again the results of the two methods are always reasonably close. The difference never exceeds 1 p.c. and in some cases the two methods produce almost identical results.

Over the whole period in the Prairie Provinces taken as a whole, the change in the specific fertility rates of married women between the years 1921 and 1936 would in itself have accounted for a reduction in the crude birth rate of between 22 and 23 p.c.

The preparatory computations in Statement L having been made, we may now proceed to the analysis shown in Statement M, which corresponds to that shown for the Registration Area in Statement XXX. Each five-year period is given a separate section and the last section shows the effect of the whole change between 1921 and 1936.

M.—ANALYSIS OF PERCENTAGE CHANGE IN CRUDE BIRTH RATES, PRAIRIE PROVINCES, 1921-1926, 1926-1931 AND 1931-1936

Province and Year	P.C. Latter Year of Period Forms of Former	Effect of Each Factor Contributing to P.C. Change of Crude Rates, if Working Alone							Product of Factors A-E[1]
		A	B	C First Method	C Second Method	D First Method	D Second Method	E	
1921-1926									
Prairie Provinces	81·55	101·66	93·60	92·43	92·84	92·32	91·91	99·88	81·9
Manitoba	75·75	102·55	93·15	92·14	92·66	85·31	84·83	100·93	75·8
Saskatchewan	85·01	101·59	93·51	92·54	92·95	96·09	95·67	100·78	85·1
Alberta	87·14	101·01	94·51	93·07	92·86	96·61	96·83	101·93	86·7
1926-1931									
Prairie Provinces	93·53	103·17	95·71	99·43	99·89	93·29	93·79	100·88	93·3
Manitoba	89·50	102·54	96·24	98·91	98·78	91·49	91·52	109·41	89·6
Saskatchewan	91·68	104·26	94·29	99·24	99·23	92·85	92·86	101·14	91·6
Alberta	99·11	102·80	96·48	192·49	192·47	96·59	96·61	100·91	99·1
1931-1936									
Prairie Provinces	87·88	103·41	94·68	' 99·01	98·85	90·33	90·47	100·42	87·9
Manitoba	88·03	103·11	96·99	99·67	99·73	88·99	88·85	190·28	88·0
Saskatchewan	88·72	104·56	93·13	98·22	98·47	92·18	91·96	199·72	88·8
Alberta	86·02	102·36	95·99	98·64	98·68	90·13	99·10	100·17	86·7
1921-1936									
Prairie Provinces	67·23	108·46	84·82	91·08	91·85	78·51	77·88	102·16	67·2
Manitoba	59·68	108·43	86·15	90·13	91·01	69·85	69·18	191·52	59·8
Saskatchewan	69·14	110·55	82·11	89·84	90·72	82·59	81·78	102·66	69·2
Alberta	74·82	106·35	86·71	93·89	93·39	84·29	84·74	102·12	74·5

[1] First method of calculating factors C and D used.
A—Change in proportion of women of child-bearing ages (15-49 years) to total population.
B—Change in proportion of married women to all women within child-bearing ages.
C—Change in age distribution of married women of child-bearing ages.
D—Change in specific fertility rates of married women of child-bearing ages.
E—Change in proportion of total births to legitimate births.

To sum up for the Prairie Provinces taken as a whole, between 1921 and 1936:—

The change in the proportion of women of child-bearing ages to the total population would have accounted for an increase of 8·5 p.c. in the crude birth rate.

The change in the conjugal condition of women in the child-bearing age groups would have accounted for a reduction of over 15 p.c. in the crude birth rate.

The change in the age distribution of married women in the child-bearing age groups would have accounted for a reduction of between 8 and 9 p.c. in the crude birth rate.

The lowering of specific fertility rates within marriage would have accounted for a reduction of slightly more than 2 p.c. in the crude birth rate.

The increase in the proportion of illegitimate births would have accounted for an increase of between 21·5 and 22·5 p.c.

As a result of the operation of these varying factors, the crude birth rate of the Prairie Provinces declined during the fifteen years by almost one-third. It will be noted that the percentage, 67·2, can be obtained by multiplying the percentages represented by the various factors, *i.e.*, 108·46, 84·82, 91·08, 78·51 and 102·16. For the two factors, C and D, 91·85 and 77·85 could be substituted for 91·08 and 78·51.